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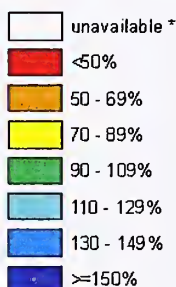
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# Washington Water Supply Outlook Report May 1, 2008

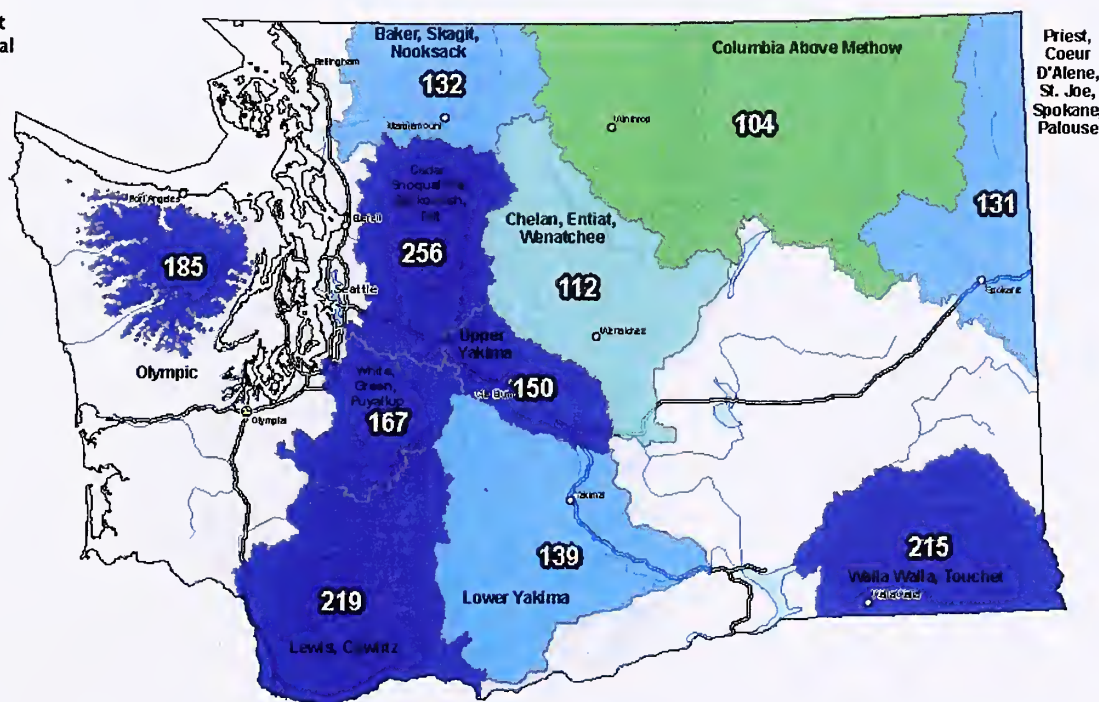
## Washington SNOTEL Current Snow Water Equivalent (SWE) % of Normal

May 09, 2008

Current Snow Water  
Equivalent (SWE)  
Basin-wide Percent  
of 1971-2000 Normal



\* Data unavailable at time  
of posting or measurement  
is not representative at this  
time of year



Provisional Data  
Subject to Revision



The snow water equivalent percent of normal represents the current snowwater equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by the USDA/NRCS National Water and Climate Center  
Portland, Oregon <http://www.nrcs.usda.gov/gis/>  
Based on data from <http://www.nrcs.usda.gov/reports/>  
Science contact: Tom Pagano [por.usda.gov](mailto:por.usda.gov) 503 414 3010

# Water Supply Outlook Reports

## and

### Federal - State – Private Cooperative Snow Surveys

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#### *How forecasts are made*

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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# Washington Water Supply Outlook

May 2008

## General Outlook

Same story different month, below average temperatures and below average precipitation prevented normal snowmelt from occurring at all but the lowest elevation areas. Record snowpack is still being recorded at many stations across the state. April streamflow and reservoir levels reflect the lack of runoff as well. Some reservoir levels are so low that opening day of fishing season was delayed since the boats couldn't get in the water. Below average temperatures continue to be the mantra of weather forecasters through May-June. However a short warming spell with temperatures 10-15 degrees above normal is expected next week which should help get the runoff season started. With the lack of April runoff forecasted streamflows for May-September have increased in most basins from past months reports.

## Snowpack

The May 1 statewide SNOTEL readings were 173% of average. The Methow River snow surveys reported the lowest readings at 96% of average. Readings in the Cedar River Basin in King County reported the highest at 454% of average. Westside averages from SNOTEL, and May 1 snow surveys, included the North Puget Sound river basins with 145% of average, the Central Puget river basins with 235%, and the Lewis-Cowlitz basins with 187% of average. Snowpack along the east slopes of the Cascade Mountains included the Yakima area with 133% and the Wenatchee area with 155%. Snowpack in the Spokane River Basin was at 173% and the Walla Walla River Basin had 190% of average. Maximum snow cover in Washington was at Swift Creek SNOTEL near Mt. St. Helens, with water content of 107 inches on May 1st. The highest average in the state was at Spirit Lake SNOTEL with 5383% of average. Normally Spirit Lake would only have .6 inches of water where it now has a record high 32.3 inches. Spirit Lake sits at 3100 foot elevation north of Mt. St. Helens.

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane .....	328 .....	173
Newman Lake .....	2037 .....	238
Pend Oreille .....	184 .....	131
Okanogan .....	124 .....	112
Methow .....	100 .....	96
Conconully Lake .....	0 .....	167
Wenatchee .....	159 .....	117
Chelan .....	104 .....	99
Upper Yakima .....	200 .....	151
Lower Yakima .....	156 .....	115
Ahtanum Creek .....	222 .....	127
Walla Walla .....	546 .....	190
Lower Snake .....	264 .....	147
Cowlitz .....	174 .....	151
Lewis .....	216 .....	223
White .....	133 .....	103
Green .....	250 .....	211
Puyallup .....	174 .....	164
Cedar .....	360 .....	454
Snoqualmie .....	199 .....	199
Skykomish .....	148 .....	152
Skagit .....	114 .....	120
Baker .....	183 .....	117
Nooksack .....	185 .....	198
Olympic Peninsula .....	156 .....	166

## Precipitation

During the month of April, the National Weather Service and Natural Resources Conservation Service climate stations reported near to below average precipitation totals throughout Washington river basins. The highest percent of average in the state was at Tinkham SNOTEL which reported 159% of average for a total of 10.5 inches. The average for this site is 6.6 inches for April. Conversely, the lowest percent of average was at Plain, WA with only 20% of average for a total of 0.26 inches of precipitation.

RIVER BASIN	APRIL PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane .....	84 .....	112
Colville-Pend Oreille .....	73 .....	101
Okanogan-Methow .....	72 .....	100
Wenatchee-Chelan .....	63 .....	94
Upper Yakima .....	76 .....	98
Lower Yakima .....	81 .....	100
Walla Walla .....	105 .....	107
Lower Snake .....	86 .....	111
Cowlitz-Lewis .....	91 .....	102
White-Green-Puyallup .....	87 .....	98
Central Puget Sound .....	102 .....	108
North Puget Sound .....	71 .....	97
Olympic Peninsula .....	117 .....	91

## Reservoir

Seasonal reservoir levels in Washington vary greatly due to specific watershed management practices required in preparation for, spring snow melt, irrigation season, fisheries management, power generation, municipal demands and flood control. May 1 storage was essentially unchanged from April 1 numbers due to a colder than average month and much below average runoff. Reservoir storage in the Yakima Basin was 380,000-acre feet, 61% of average for the Upper Reaches and 107,000-acre feet or 63% of average for Rimrock and Bumping Lakes. Storage at the Okanogan reservoirs was 86% of average for May 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 170,000 acre feet, 68% of average and 71% of capacity; Chelan Lake, 158,000-acre feet, 60% of average and 23% of capacity; and the Skagit River reservoirs at 67% of average and 36% of capacity.

BASIN	PERCENT OF CAPACITY	CURRENT STORAGE AS PERCENT OF AVERAGE
Spokane .....	71 .....	68
Colville-Pend Oreille .....	53 .....	88
Okanogan-Methow .....	70 .....	86
Wenatchee-Chelan .....	23 .....	60
Upper Yakima .....	46 .....	61
Lower Yakima .....	46 .....	63
Lower Snake .....	50 .....	72
North Puget Sound .....	36 .....	67

*For more information contact your local Natural Resources Conservation Service office.*

## Streamflow

For the most part forecasts increased from last month and vary from 167% of average for the Rex River near Cedar Falls to 89% of average for the Methow near Pateros. May-September forecasts for some Western Washington streams include the Cedar River near Cedar Falls, 166%; White River, 135%; and Skagit River, 112%. Some Eastern Washington streams include the Yakima River near Parker, 126%; Wenatchee River at Plain, 112%; and Spokane River near Post Falls, 147%. Volumetric forecasts are developed using current, historic and average snowpack, precipitation and streamflow data collected and coordinated by organizations cooperating with NRCS.

Statewide April streamflows were mostly below average due to colder than average temperatures and a lack of snow melt. The S.F. Walla Walla River had the highest reported flows with 121% of average. The Kettle River near Laurier with 20% of average was the lowest in the state. Other streamflows were the following percentage of average as reported by the River Forecast Center: the Cowlitz at Castle Rock, 73%; the Spokane at Spokane, 63%; the Columbia below Rock Island Dam, 44%; and the Cle Elum near Roslyn, 45%.

BASIN	PERCENT OF AVERAGE (50 PERCENT CHANCE OF EXCEEDENCE)
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Spokane .....	105-147
Colville-Pend Oreille .....	102-134
Okanogan-Methow .....	89-94
Wenatchee-Chelan .....	100-113
Upper Yakima .....	133-142
Lower Yakima .....	104-126
Walla Walla .....	113-121
Lower Snake .....	111-130
Cowlitz-Lewis .....	125-139
White-Green-Puyallup .....	131-135
Central Puget Sound .....	165-167
North Puget Sound .....	112-119
Olympic Peninsula .....	123-125

STREAM	PERCENT OF AVERAGE APRIL STREAMFLOWS
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Pend Oreille Below Box Canyon .....	46
Kettle at Laurier .....	22
Columbia at Birchbank .....	44
Spokane at Long Lake .....	68
Similkameen at Nighthawk .....	34
Okanogan at Tonasket .....	38
Methow at Pateros .....	48
Chelan at Chelan .....	43
Wenatchee at Pashastin .....	39
Yakima at Cle Elum .....	45
Yakima at Parker .....	51
Naches at Naches .....	66
Grande Ronde at Troy .....	79
Snake below Lower Granite Dam .....	56
SF Walla Walla near Milton Freewater .....	121
Columbia River at The Dalles .....	50
Lewis at Ariel .....	80
Cowlitz below Mayfield Dam .....	70
Skagit at Concrete .....	52
Dungeness near Sequim .....	85

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# BASIN SUMMARY OF SNOW COURSE DATA

MAY 2008

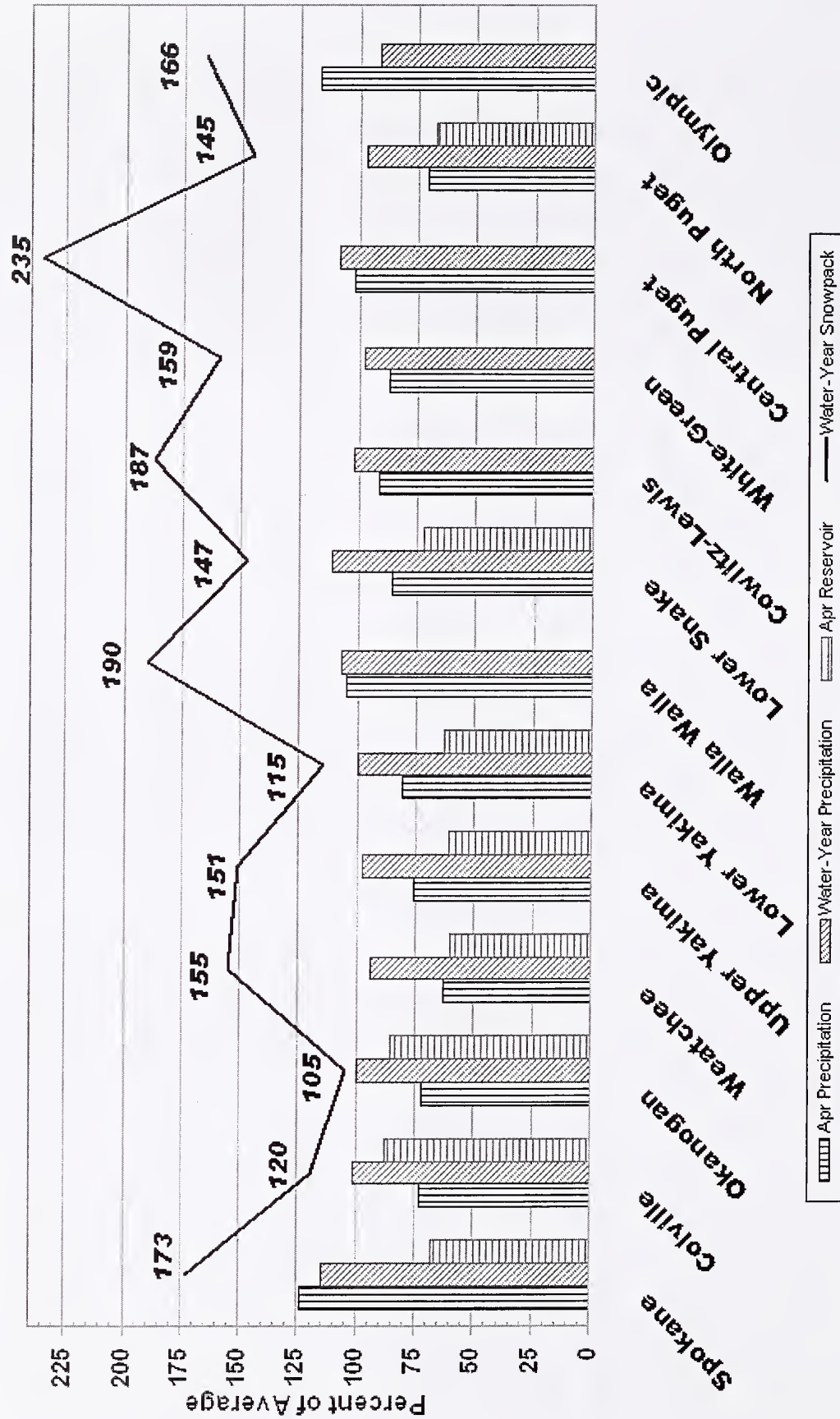
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
ABERDEEN LAKE CAN.	4000	4/28/08	14	4.4	--	1.1	KLESILKWA CAN.	3450	5/01/08	26	11.1	--	4.8
ALPINE MEADOWS SNTL	3500	5/01/08	---	80.4	56.0	45.8	KRAFT CREEK SNOTEL	4750	5/01/08	20	9.2	.0	5.2
AMBROSE	6480	4/30/08	41	13.0	8.2	11.1	LESTER CREEK	3100	4/26/08	92	40.0	15.4	16.6
ASHLEY DIVIDE	4820	5/02/08	11	3.9	.0	1.1	LIGHTNING LAKE CAN.	3700	4/25/08	42	15.3	11.1	9.9
HADGER PASS	6900	4/26/08	111	43.1	--	--	LOGAN CREEK	4300	4/25/08	28	10.0	.0	1.7
BADGER PASS SNOTEL	6900	5/01/08	86	44.2	30.8	36.2	LOLO PASS SNOTEL	5240	5/01/08	84	37.7	13.0	24.5
BARRE CREEK	5500	4/28/08	105	45.7	28.5	40.3	LONE PINE SNOTEL	3800	5/01/08	143	70.8	33.9	34.2
HAREE MIDWAY	4600	4/28/08	79	29.9	21.1	27.4	LOOKOUT SNOTEL	5140	5/01/08	92	38.5	17.1	27.2
HAREE TRAIL	3800	4/28/08	48	20.2	.0	1.3	LOST HORSE SNOTEL	5000	5/01/08	33	15.8	.0	10.7
BARKER LAKES SNOTEL	8250	5/01/08	53	16.5	16.0	16.2	LOST LAKE SNOTEL	6110	5/01/08	---	68.8	44.7	59.7
BARNES CREEK CAN.	5320	4/26/08	63	21.5	16.1	19.7	LOWER SANDS CREEK #2	3120	5/02/08	90	39.8	10.3	15.8
BASIN CREEK SNOTEL	7180	5/01/08	31	8.1	7.4	10.0	LUBRECHT FOREST NO 3	5450	4/26/08	15	4.4	.0	1.7
HASSOO PEAK	5150	4/24/08	37	14.4	.0	3.2	LUBRECHT FOREST NO 4	4650	4/26/08	0	.0	.0	.1
BEAVER CREEK TRAIL	2200	4/30/08	43	18.4	.0	4.4	LUBRECHT FOREST NO 6	4040	4/26/08	0	.0	.0	.0
BEAVER PASS	3680	4/30/08	80	34.3	33.2	27.2	LUBRECHT HYDROFLOT	4200	4/26/08	0	.0	.0	.1
HEAVER PASS SNOTEL	3630	5/01/08	99	44.6	43.3	35.5	LUBRECHT SNOTEL	4680	5/01/08	0	.0	.0	.5
BIG WHITE MTN CAN.	5510	5/02/08	48	17.4	15.9	19.4	LYMAN LAKE SNOTEL	5900	5/01/08	140	57.7	69.4	67.2
BLACK MOUNTAIN	7750	4/29/08	48	16.2	17.6	16.9	LYNN LAKE	4000	4/26/08	155	64.5	17.2	14.5
BLACK PINE SNOTEL	7100	5/01/08	33	12.6	4.3	11.0	MARIAS PASS	5250	4/30/08	44	19.0	8.3	12.5
BLACKWALL PILL CAN.	6370	5/01/08	---	35.2	38.4	34.9	MARTEN LAKE AM	3600	5/05/08	189	100.0	--	73.4
HLEWETT PASS#2SNOTEL	4270	5/01/08	13	8.7	.0	5.0	MARTEN RIDGE SNOTEL	3520	5/01/08	151	86.7	47.3	--
BLUE LAKE	5900	4/26/08	60	21.0	16.4	22.4	MCCULLOCH CAN.	4200	4/30/08	9	2.7	.0	1.2
BRENDA MINE CAN.	4450	5/01/08	---	11.5	6.2	9.3	MEADOWS CABIN	1900	4/30/08	11	4.5	.0	1.1
BROOKMERE CAN.	3000	4/28/08	15	4.7	2.4	4.0	MEADOWS PASS SNOTEL	3240	5/01/08	124	57.2	15.8	10.8
BROWN TOP AM	6000	4/30/08	154	67.2	73.3	62.1	MICA CREEK SNOTEL	4510	5/01/08	85	39.8	10.8	15.3
BRUSH CREEK TIMBER	5000	4/24/08	27	9.5	.0	3.6	MINERAL CREEK	4000	4/28/08	42	18.7	.0	9.6
HULL MOUNTAIN	6600	4/30/08	11	3.8	.0	2.6	MINERS RIDGE SNOTEL	6200	5/01/08	147	55.2	47.4	56.9
BUMPING LAKE (NEW)	3400	4/30/08	41	18.2	3.4	10.4	MISSEZULA MTN CAN.	5080	4/28/08	22	6.1	2.9	5.5
BUMPING RIDGE SNOTEL	4600	5/01/08	---	35.9	21.5	27.5	MISSION CREEK CAN.	5840	5/01/08	---	22.2	18.7	21.3
HUNCHGRASS MDWSNOTEL	5000	5/01/08	80	31.0	17.3	28.6	MISSION RIDGE	5000	5/05/08	42	15.5	5.8	--
BURNT MOUNTAIN PIL	4200	5/01/08	78	49.2	10.2	5.6	MONASHEE PASS CAN.	4500	4/26/08	41	14.3	--	11.4
CAYUSE PASS	5300	5/05/08	194	79.6	--	89.1	MORRISSEY RIDGE CAN.	6100	5/01/08	---	30.6	31.7	27.2
CAYUSE PASS SNOTEL	5240	5/01/08	173	77.6	57.0	--	MORSE LAKE SNOTEL	5400	5/01/08	132	65.7	47.4	57.0
CHESSMAN RESERVOIR	6200	4/25/08	13	3.6	.0	1.7	MOSES MTN SNOTEL	4800	5/01/08	37	12.6	6.5	10.9
CHICKEN CREEK	4060	4/29/08	53	22.6	8.1	5.4	MOSQUITO RDG SNOTEL	5200	5/01/08	---	48.0	23.1	32.2
CHIWAUKUM G.S.	2500	5/05/08	10	4.7	.0	1.7	MOUNT HLUM AM	5800	5/05/08	144	72.0	--	72.4
COMBINATION SNOTEL	5600	5/01/08	10	3.5	.0	1.2	MOUNT CRAG SNOTEL	4050	5/01/08	105	42.5	24.7	27.8
COPPER BOTTOM SNOTEL	5200	5/01/08	7	3.1	.0	4.5	MT. KOBAN CAN.	5500	4/27/08	30	9.1	10.5	12.8
COPPER MOUNTAIN	7700	4/26/08	40	11.8	6.7	10.0	MOWICH SNOTEL	3150	5/01/08	9	3.6	.0	.0
CORRAL PASS SNOTEL	6000	5/01/08	106	42.0	34.9	35.3	MOUNT GARDNER SNOTEL	2860	5/01/08	88	40.7	2.1	4.8
COTTONWOOD CREEK	6400	4/29/08	25	8.0	6.5	7.3	N.P. ELK CR SNOTEL	6250	5/01/08	31	11.1	7.1	8.0
COUGAR MTN. SNOTEL	3200	5/01/08	94	44.7	4.4	11.0	NEVADA RIDGE SNOTEL	7020	5/01/08	43	16.5	8.9	14.4
COX VALLEY	4500	4/26/08	118	52.0	42.2	37.1	NEW HOOZEMEEN LAKE	2800	4/30/08	30	12.2	.0	3.9
COYOTE HILL	4200	4/30/08	15	6.6	.0	2.6	NEZ PERCE CMP SNOTEL	5650	5/01/08	51	17.4	3.4	10.8
DALY CREEK SNOTEL	5780	5/01/08	29	11.1	.0	5.3	NEZ PERCE PASS	6570	4/28/08	48	19.1	4.0	14.2
DEER PARK	5200	4/30/08	75	30.0	16.1	15.2	NOISY BASIN SNOTEL	6040	5/01/08	117	45.8	37.9	43.8
DEVILS PARK	5900	5/01/08	106	46.2	50.6	44.7	NORTH FORK JOCKO	6330	4/28/08	109	47.6	33.1	41.2
DISCOVERY BASIN	7050	4/28/08	34	11.0	9.5	9.4	OLLALLIE MDWS SNOTEL	3960	5/01/08	172	86.8	52.9	55.1
DIX HILL	6400	4/27/08	29	11.1	.0	3.8	OPHIR PARK	7150	4/27/08	45	16.4	8.6	16.0
DOCK HUTTE AM	3800	5/05/08	162	85.9	--	62.9	OYAMA LAKE CAN.	4100	4/29/08	18	5.1	.6	2.6
DOMMERIE FLATS	2200	4/30/08	0	.0	.0	--	PARADISE PARK SNOTEL	5500	5/01/08	196	104.5	72.9	74.8
DUNGENESS SNOTEL	4100	5/01/08	47	15.4	.0	.9	PARK CK RIDGE SNOTEL	4600	5/01/08	103	55.4	45.4	39.8
EAST FORK R.S.	5400	4/25/08	9	2.5	.0	.7	PETERSON MDW SNOTEL	7200	5/01/08	40	11.4	12.1	11.0
EASY PASS AM	5200	5/05/08	126	93.8E	--	86.9	PIGTAIL PEAK SNOTEL	5900	5/01/08	156	71.9	56.9	56.5
ELBOW LAKE SNOTEL	3200	5/01/08	---	64.3	34.8	32.5	PIKE CREEK SNOTEL	5930	5/01/08	69	28.9	15.9	25.9
EMERY CREEK SNOTEL	4350	5/01/08	39	15.6	.0	7.4	PIPESTONE PASS	7200	4/26/08	21	6.2	1.2	4.8
ENDERBY CAN.	5800	4/26/08	113	46.3	44.5	43.5	POPE RIDGE SNOTEL	3540	5/01/08	37	13.9	5.3	7.0
ESPERON CK. UP CAN.	5050	4/29/08	38	14.1	13.2	15.4	POSTILL LAKE CAN.	4200	4/30/08	24	7.4	2.9	5.3
FARRON CAN.	4000	5/01/08	28	11.4	3.2	8.1	POTATO HILL SNOTEL	4500	5/01/08	109	44.5	21.4	18.9
FATTY CREEK	5500	4/28/08	76	29.9	20.8	23.4	QUARTZ PEAK SNOTEL	4700	5/01/08	82	35.4	4.3	14.9
FISH CREEK	8000	4/30/08	32	8.8	9.8	11.5	RAGGED MTN SNOTEL	4210	5/01/08	78	36.3	.0	--
FISH LAKE	3370	4/29/08	72	36.9	12.6	23.1	RAGGED RIDGE	3330	4/28/08	37	17.2	.0	--
FISH LAKE SNOTEL	3370	5/01/08	80	34.0	17.2	28.8	RAINY PASS SNOTEL	4780	5/01/08	85	32.6	33.9	43.2
FLATTOP MTN SNOTEL	6300	5/01/08	132	51.7	40.1	46.7	RAINY PASS	4780	5/01/08	94	42.6	37.4	39.3
FLEECER RIDGE	7500	4/30/08	32	10.0	4.8	8.7	REX RIVER SNOTEL	1900	5/01/08	---	90.0	27.2	19.0
FOURTH OF JULY SUM	3200	4/29/08	34	14.4	.0	.3	ROCKER PEAK SNOTEL	8000	5/01/08	48	14.2	12.8	16.6
FREEZEOUT CK. TRAIL	3500	5/01/08	34	15.1	5.6	6.4	ROCKY CREEK AM	2100	5/05/08	94	48.9	--	18.8
FROHNER MDWS SNOTEL	6480	5/01/08	23	7.8	2.3	6.5	ROUND TOP MTN	4020	4/28/08	61	27.6	.0	--
GRASS MOUNTAIN #2	2900	4/26/08	56	28.5	.0	--	SF THUNDER CK AM	2200	5/05/08	4	2.2	--	1.2
GRAVE CRK SNOTEL	4300	5/01/08	45	18.0	1.6	7.0	SADDLE MTN SNOTEL	7900	5/01/08	85	32.0	20.0	26.5
GREEN LAKE SNOTEL	6000	5/01/08	73	29.2	20.3	24.6	SALMON MDWS SNOTEL	4500	5/01/08	17	6.5	.0	3.9
GREYBACK RES CAN.	4700	5/04/08	21	7.0	3.7	7.0	SASSE RIDGE SNOTEL	4200	5/01/08	85	38.1	24.2	32.3
GRIFFIN CR DIVIDE	5150	4/24/08	34	12.6	.0	4.9	SATUS PASS	4030	5/02/08	33	15.2	--	--
GROUSE CAMP SNOTEL	5380	5/01/08	44	19.4	8.0	11.1	SAVAGE PASS SNOTEL	6170	5/01/08	86	34.7	15.5	25.2
HAMILTON HILL CAN.	4550	4/27/08	31	7.2	6.6	10.6	SAWMILL RIDGE	4700	4/26/08	102	46.7	22.2	32.8
HAND CREEK SNOTEL	5030	5/01/08	36	13.9	.0	6.8	SAWMILL RIDGE SNOTEL	4630	5/01/08	125	66.8	44.4	--
HARTS PASS SNOTEL	6500	5/01/08	98	44.2	50.0	47.7	SCHREIBERS MDW AM	3400	5/05/08	123	65.2	--	53.2
HARTS PASS	6500	4/30/08	103	46.2	50.1	44.4	SENTINEL BT SNOTEL	4920	5/01/08	33	9.4	.0	--
HELL ROARING DIVIDE	5770	4/27/08	90	36.8	25.2	29.0	SHEEP CANYON SNOTEL	4050	5/01/08	---	79.5	28.6	32.0
HERRIG JUNCTION	4850	4/29/08	76	31.9	23.8	22.9	SHERWIN SNOTEL	3200	5/01/08	---	6.7	.0	3.3
HIGH RIDGE SNOTEL	4920	5/01/08	92	36.3	6.5	15.9	SILVER STAR MTN CAN.	5600	4/27/08	79	33.9	30.2	30.1
HOLBROOK	4530	4/28/08	10	3.7e	.0	1.2	SKALKAHO SNOTEL	7260	5/01/08	68	28.0	15.9	25.4
HODDOO BASIN SNOTEL	6050	5/01/08	142	54.8	33.9	45.7	SKITWISH RIDGE	5110	5/02/08	123	53.0	15.0	25.8
HUCKLEBERRY SNOTEL	2000	5/01/08	0	.0	.0	.0	SKOOKUM CREEK SNOTEL	3920	5/01/08	147	85.4	12.9	14.6
HUMBOLDT GLCH SNOTEL	4250	5/01/08	---	22.6	.0	5.5	SLIDE ROCK MOUNTAIN	7100	4/27/08	45	17.3	10.6	15.7
INTERGAARD	6450	4/27/08	23	7.9	2.3	6.1	SOURDOUGH GUL SNOTEL	4000	5/01/08	0	.0	.0	--
JASPER PASS AM	5400	5/05/08	196	98.0	--	91.1	SPENCER MDW SNOTEL	3400	5/01/08	130	65.4	23.7	21.8
JUNE LAKE SNOTEL	3200	5/01/08	---	97.4	34.8	29.6	SPIRIT LAKE SNOTEL	3100	5/01/08	41	32.3	.0	.6



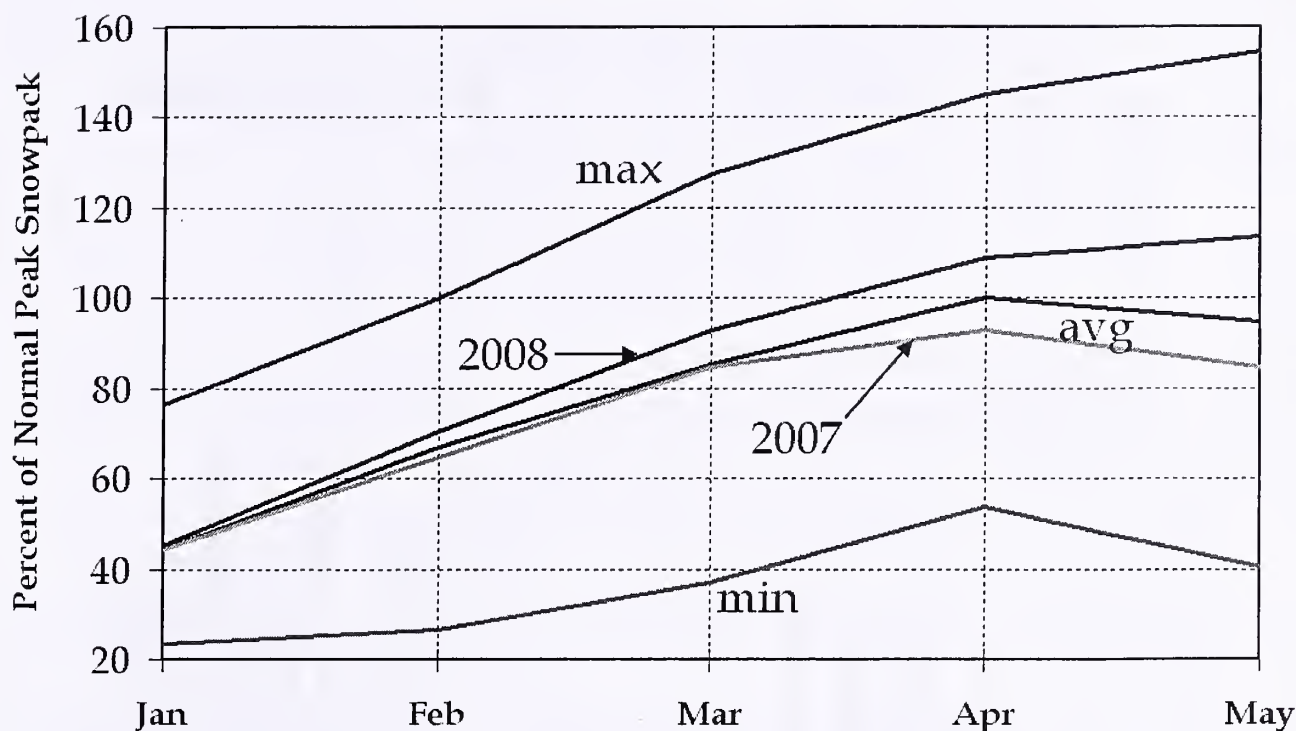
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
SPOTTED BEAR MTN.	7000	4/26/08	38	15.7	.0	7.6
SPRUCE SPGS SNOTEL	5700	5/01/08	56	24.3	.0	--
STAHL PEAK SNOTEL	6030	5/01/08	117	43.3	37.2	37.1
STAMPEDE PASS SNOTEL	3860	5/01/08	149	62.6	36.8	42.7
STEMPLE PASS	6600	4/25/08	42	12.0	6.5	9.3
STEVENS PASS SNOTEL	4070	5/01/08	110	43.1	27.4	35.2
STORM LAKE	7780	4/28/08	46	15.1	12.4	14.3
STRYKER BASIN	6180	4/29/08	102	40.1	29.5	32.6
STUART MOUNTAIN	7400	4/28/08	84	35.9	--	--
SUNSET SNOTEL	5540	5/01/08	--	30.9	12.1	28.7
SURPRISE LKS SNOTEL	4250	5/01/08	158	72.0	41.4	41.8
SWAMP CREEK SNOTEL	4000	5/01/08	35	17.6	3.3	4.6
TEN MILE LOWER	6600	4/25/08	28	7.6	1.6	4.5
TEN MILE MIDDLE	6800	4/25/08	38	10.6	5.9	11.2
THUNDER BASIN SNOTEL	4200	5/01/08	76	37.1	28.2	27.4
THOMPSON CREEK	2500	4/28/08	17	7.4	.0	--
TINKHAM CREEK SNOTEL	3000	5/01/08	120	60.0	23.7	20.0
TOUCHET SNOTEL	5530	5/01/08	94	44.6	8.2	26.2

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
TRINKUS LAKE	6100	4/26/08	126	50.2	41.5	40.8
TROUGH #2 SNOTEL	5310	5/01/08	3	2.6	.0	4.3
TROUT CREEK CAN.	5650	5/01/08	18	5.6	1.4	3.7
TRUMAN CREEK	4060	4/30/08	7	2.4	.0	.1
TUNNEL AVENUE	2450	4/30/08	63	31.7	7.1	12.0
TV MOUNTAIN	6800	4/28/08	55	21.1	13.9	17.1
TWELVEMILE SNOTEL	5600	5/01/08	47	23.1	.0	8.8
TWIN CAMP	4100	4/26/08	74	31.8	14.1	20.3
TWIN CREEKS	3580	4/26/08	30	12.5	.0	1.7
TWIN LAKES SNOTEL	6400	5/01/08	113	52.1	30.5	38.5
UPPER HOLLAND LAKE	6200	4/26/08	83	31.6	26.6	33.5
UPPER WHEELER SNOTEL	4400	5/01/08	34	12.9	3.3	6.3
VASEUX CREEK CAN.	4250	5/05/08	6	2.0	.0	2.3
WARM SPRINGS SNOTEL	7800	5/01/08	70	23.2	23.0	23.7
WATSON LAKES AM	4500	5/05/08	151	80.0	--	64.0
WATERHOLE SNOTEL	5000	5/01/08	118	54.9	42.2	36.4
WEASEL DIVIDE	5450	4/28/08	84	37.4	30.9	32.7
WHITE PASS ES SNOTEL	4500	5/01/08	72	29.7	16.5	21.4
WHITE ROCKS MTN CAN.	7200	4/29/08	50	20.6	18.7	21.0

# May 1, 2008 - Snowpack, Precipitation and Reservoir Conditions at a Glance (Water Year = October 1, 2007 - Current Date)



## Columbia above The Dalles



May 1, 2008

The Columbia Basin snowpack charts are produced, using only automated data. These data are telemetered via remote collection sites in Canada and the United States. The data are provisional, until they are officially released by the responsible data collection agency.

Brrrrrr...it has been cold this April folks! With much of the Columbia Basin receiving less than 50% of normal precipitation during April, one would think that the snow pack would have been decimated. Just the opposite is true. Much below normal temperatures (as much as 10 degrees below normal in some areas) have delayed the snow melt, which has resulted in an 11 percentage point increase to the overall snow pack above The Dalles.

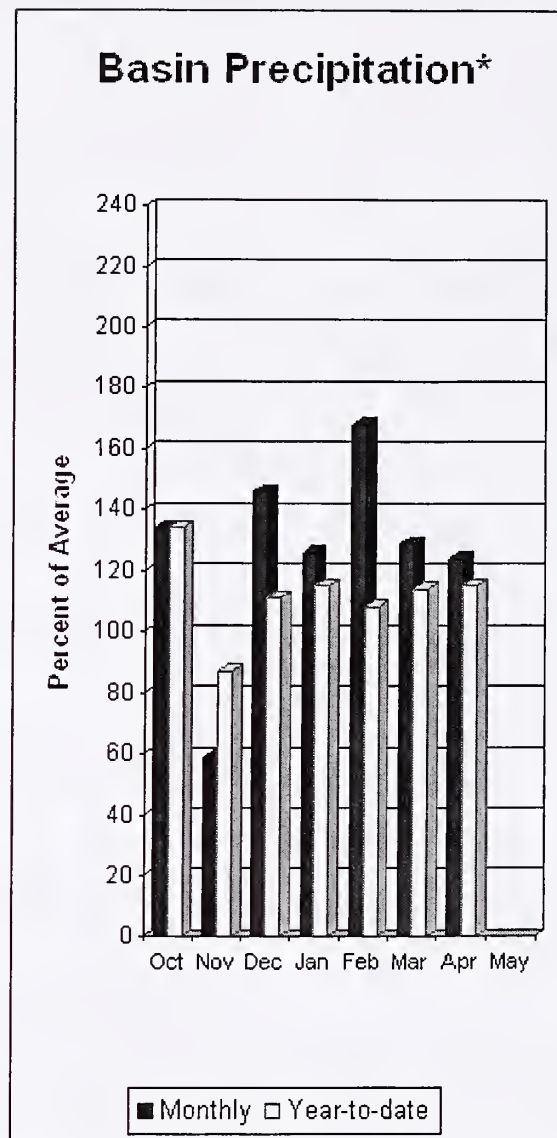
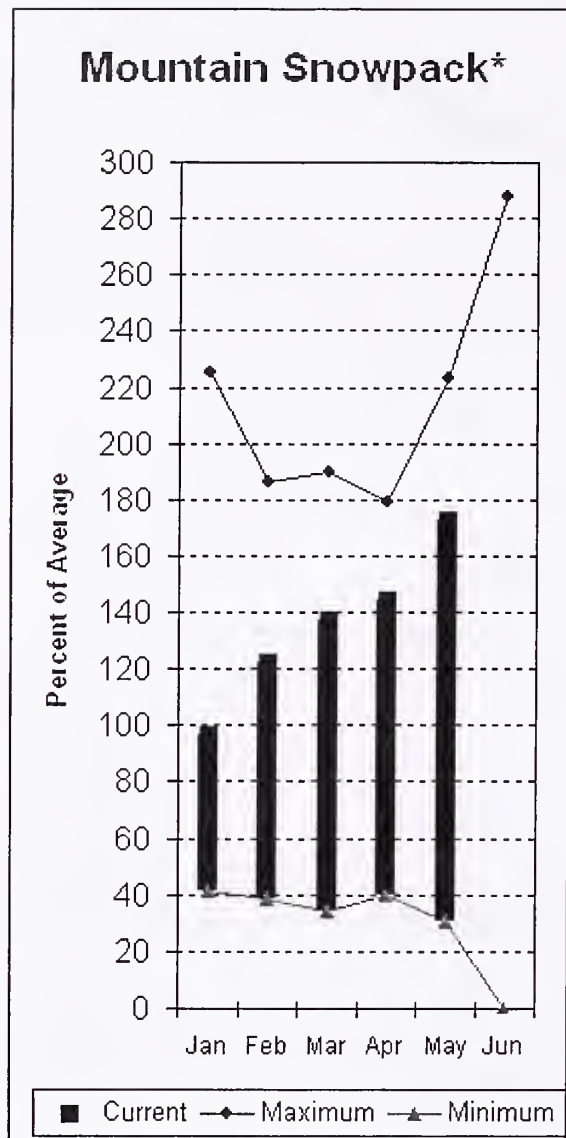
Overall, the combined snowpack above The Dalles is at 120 percent of average, compared to 109 percent last month and 89 percent last year. Looking at watersheds that had double digit increases, the Pend Oreille increased 14%, Kettle 11%, Spokane 21%, Yakima 11%, Snake 12%, Eastern Oregon 49%, Salmon 12%, Clearwater 16%, John Day 44%, and the Deschutes increased 31%. The Columbia Basin snow pack is currently at 114% of its peak snow water equivalent.

The snowpack in the Columbia Basin above Castlegar is at 107 percent of average. This compares to 118 percent last year and 103 percent last month. For the basin above Grand Coulee, the snowpack is at 113 percent of average, compared to 103 percent last year and 107 percent last month. The Snake River snowpack above Ice Harbor is at 130 percent of average, compared to 55 percent last year and 114 percent last month. The Canadian snow pack is the lowest at 106 percent of average, while the snowpack in the Deschutes continues to be the highest at 183 percent.

Overall, the 2008 water supply potential within the Columbia Basin continues to look...maybe too good in some areas. People should watch the temperature forecasts in their areas. If the temperatures increase dramatically, or we get a rain-on-snow situation, heavy runoff could result. Hopefully, we will have a gradual warming trend that will extend the stream flow runoff later into the runoff season.



# Spokane River Basin



\*Based on selected stations

The May-September forecasts for runoff within the Spokane River Basin are 147% of average near Post Falls and 142% at Long Lake. The Chamokane River near Long Lake forecasted to have 105% of average flows for the May-August period. The forecast is based on a basin snowpack that is 173% of average and precipitation that is 112% of average for the water year. Precipitation for April was below normal at 84% of average. Streamflow on the Spokane River at Long Lake was 68% of average for April. May 1 storage in Coeur d'Alene Lake was 170,000-acre feet, 68% of average and 71% of capacity. Snowpack at Quartz Peak SNOTEL site was 238% of average with 35.4 inches of water content. Average temperatures in the Spokane basin were 4 degrees below normal for April and 2 degrees below normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

# Spokane River Basin

## Streamflow Forecasts - May 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
SPOKANE near Post Falls (2)	MAY-JUL	2180	2350	2470	148	2590	2760	1670
	MAY-SEP	2320	2480	2600	147	2720	2880	1770
=====								
SPOKANE at Long Lake (2)	MAY-JUL	2280	2550	2730	143	2910	3180	1910
	MAY-SEP	2550	2830	3020	142	3210	3490	2130
=====								
CHAMOKANE CREEK near Long Lake	MAY-AUG	5.8	8.7	10.7	105	12.7	15.6	10.2
	JUL-AUG	2.6	3.3	3.7	106	4.1	4.8	3.5

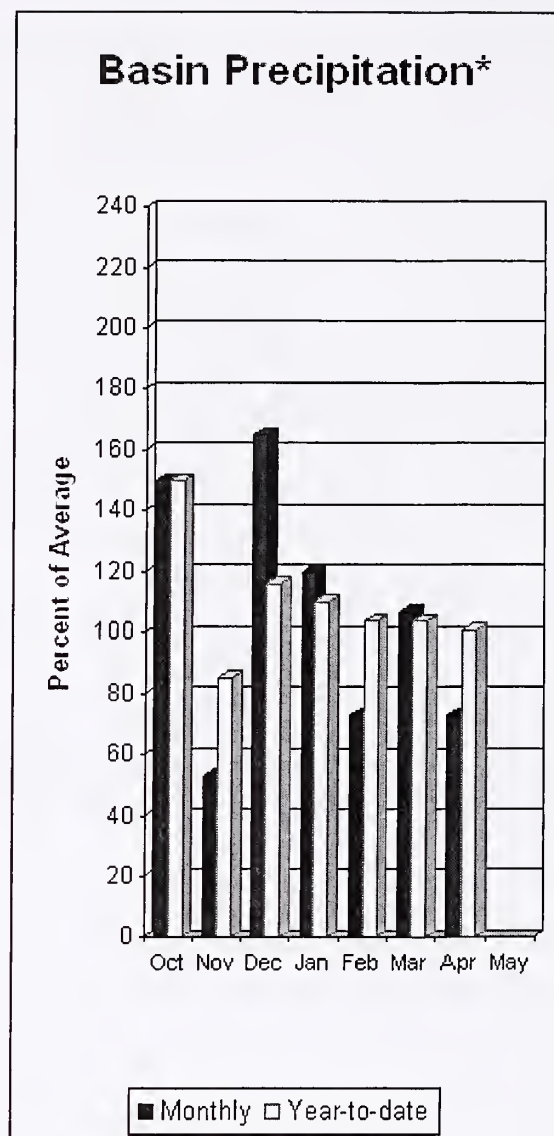
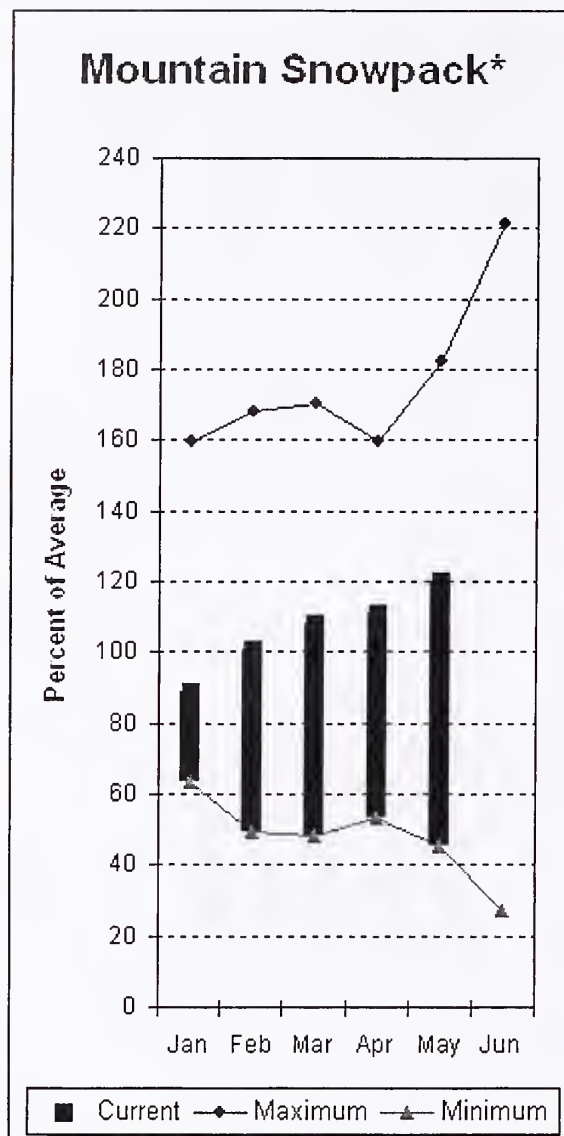
SPOKANE RIVER BASIN Reservoir Storage (1000 AF) - End of April					SPOKANE RIVER BASIN Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					SPOKANE RIVER	9	319	162
					NEWMAN LAKE	1	2037	238

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

## Colville - Pend Oreille River Basins



\*Based on selected stations

The May–September average forecast for the Kettle River streamflow is 106%, Colville at Kettle Falls is 116% and Priest River near the town of Priest River is 134%. April streamflow was 46% of average on the Pend Oreille River, 44% on the Columbia at Birchbank and 22% on the Kettle River. May 1 snow cover was 131% of average in the Pend Oreille Basin River Basin and 110 % in the Kettle River Basin. Bunchgrass Meadows SNOTEL site had 31 inches of snow water on the snow pillow. Normally Bunchgrass would have 28.6 inches on May 1. Precipitation during April was 73% of average, bringing the year-to-date precipitation to 101% of average. Reservoir storage in the basin, including Lake Pend Oreille and Priest Lake was 88% of normal. Average temperatures were 4 degrees below normal for April and 2 degrees below normal for the water year.

*For more information contact your local Natural Resources Conservation Service office.*



# Colville - Pend Oreille River Basins

## Streamflow Forecasts - May 1, 2008

		<----- Drier ----- Future Conditions ----- Wetter ----->						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
PEND OREILLE Lake Inflow (2)	MAY-JUL	11700	12000	12000	113	12400	12700	10600
	MAY-SEP	12700	13000	13200	112	13400	13700	11800
PRIEST near Priest River (1,2)	MAY-JUL	670	775	825	134	875	980	615
	MAY-SEP	740	845	895	134	945	1050	670
PEND OREILLE bl Box Canyon (2)	MAY-JUL	10300	11400	12200	114	13000	14100	10700
	MAY-SEP	11500	12600	13400	113	14200	15300	11900
COLVILLE at Kettle Falls	MAY-JUL	61	79	92	117	105	123	79
	MAY-SEP	69	92	107	116	122	145	92
KETTLE near Laurier	MAY-JUL	1240	1480	1640	107	1800	2040	1540
	MAY-SEP	1310	1570	1740	106	1910	2170	1640
COLUMBIA at Birchbank (1,2)	MAY-JUL	27800	31000	32100	102	34000	37200	31600
	MAY-SEP	35400	39300	41100	102	42900	46800	40200
COLUMBIA at Grand Coulee Dm (1,2)	MAY-JUL	43700	49300	50500	108	51700	57300	46600
	MAY-SEP	53300	58800	60100	106	61400	66900	56700

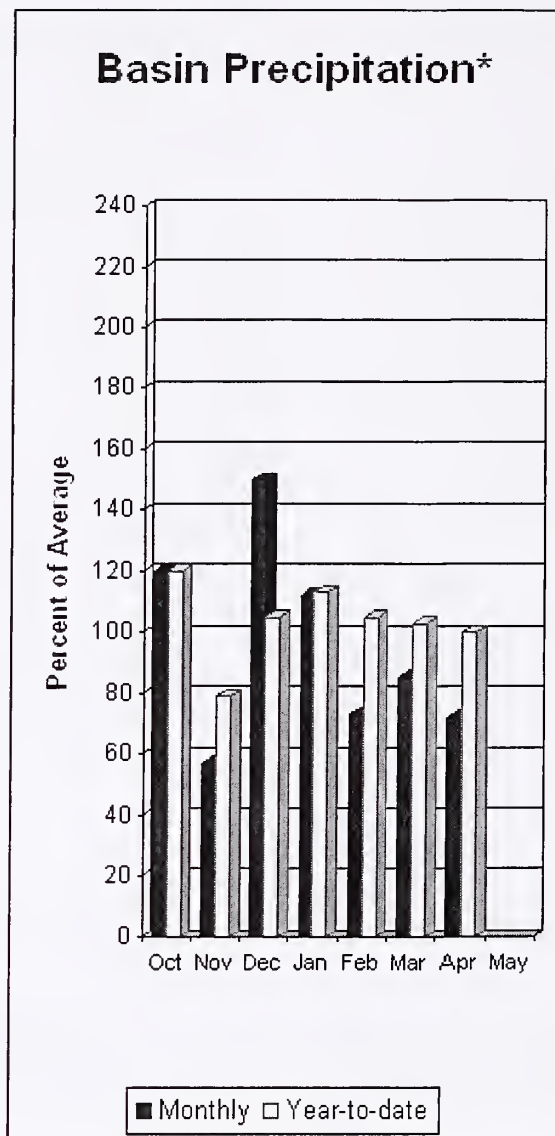
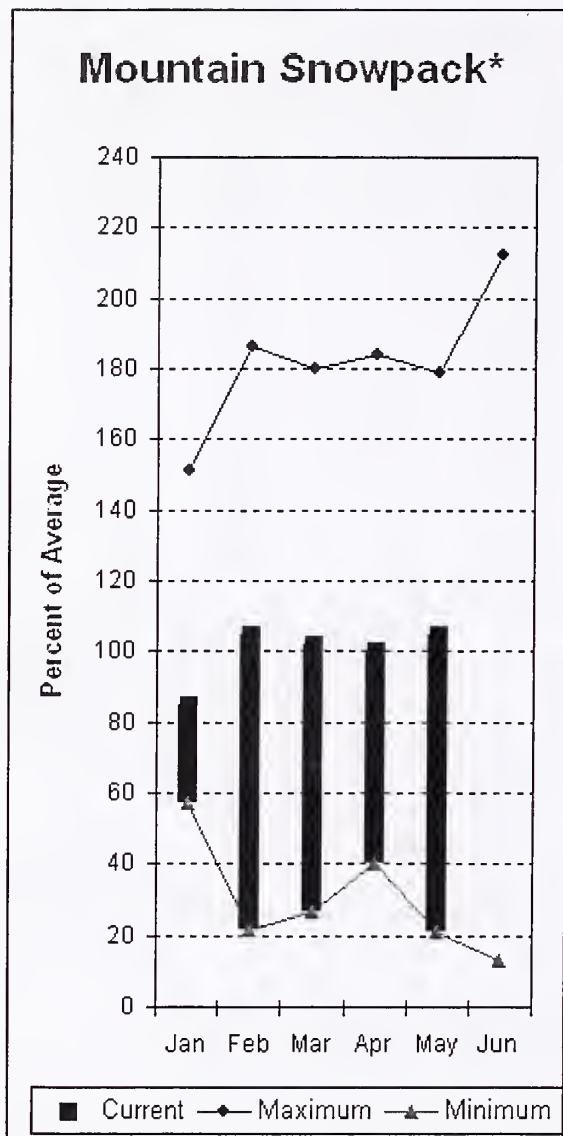
COLVILLE - PEND OREILLE RIVER BASINS Reservoir Storage (1000 AF) - End of April					COLVILLE - PEND OREILLE RIVER BASINS Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					COLVILLE RIVER	0	0	0
					PEND OREILLE RIVER	10	219	139
					KETTLE RIVER	3	219	120

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

## Okanogan - Methow River Basins



\*Based on selected stations

Summer runoff average forecast for the Okanogan River is 94%, Similkameen River is 92% and Methow River is 89%. Salmon Creek should be expected to have slightly below normal flows this summer as well. May 1 snow cover on the Okanogan was 112% of average, Omak Creek was 116% and the Methow was 96%. April precipitation in the Okanogan-Methow was 72% of average, with precipitation for the water year at 100 of average. April streamflow for the Methow River was 48% of average, 38% for the Okanogan River and 34% for the Similkameen. Snow-water content at Salmon Meadows SNOTEL was 6.5 inches. Average for this site is 3.9 inches on May 1. Combined storage in the Conconully Reservoirs was 16,000-acre feet, which is 86% of capacity and 70% of the May 1 average. Temperatures were 6 degrees below normal for April and 3 degrees below for the water year.

*For more information contact your local Natural Resources Conservation Service office.*

# Okanogan - Methow River Basins

## Streamflow Forecasts - May 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Similkameen R nr Nighthawk (1)	MAY-JUL	875	1040	1120	92	1200	1370	1220
	MAY-SEP	935	1120	1210	92	1300	1480	1320
Okanogan R nr Tonasket (1)	MAY-JUL	870	1180	1320	94	1460	1770	1400
	MAY-SEP	990	1340	1500	94	1660	2010	1590
Okanogan R at Malott (1)	MAY-JUL	890	1210	1360	94	1510	1830	1449
	MAY-SEP	1010	1370	1540	94	1710	2070	1641
Methow R nr Pateros	MAY-JUL	595	670	720	89	770	845	810
	MAY-SEP	650	725	780	89	835	910	880

OKANOGAN - METHOW RIVER BASINS Reservoir Storage (1000 AF) - End of April				OKANOGAN - METHOW RIVER BASINS Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average
		This Year	Last Year	Avg			
SALMON LAKE		NO REPORT			OKANOGAN RIVER	17	122 113
CONCONULLY RESERVOIR		NO REPORT			OMAK CREEK	1	194 116
					SANPOIL RIVER	0	0 0
					SIMILKAMEEN RIVER	4	106 97
					TOATS COULEE CREEK	0	0 0
					CONCONULLY LAKE	1	0 167
					METHOW RIVER	5	100 96

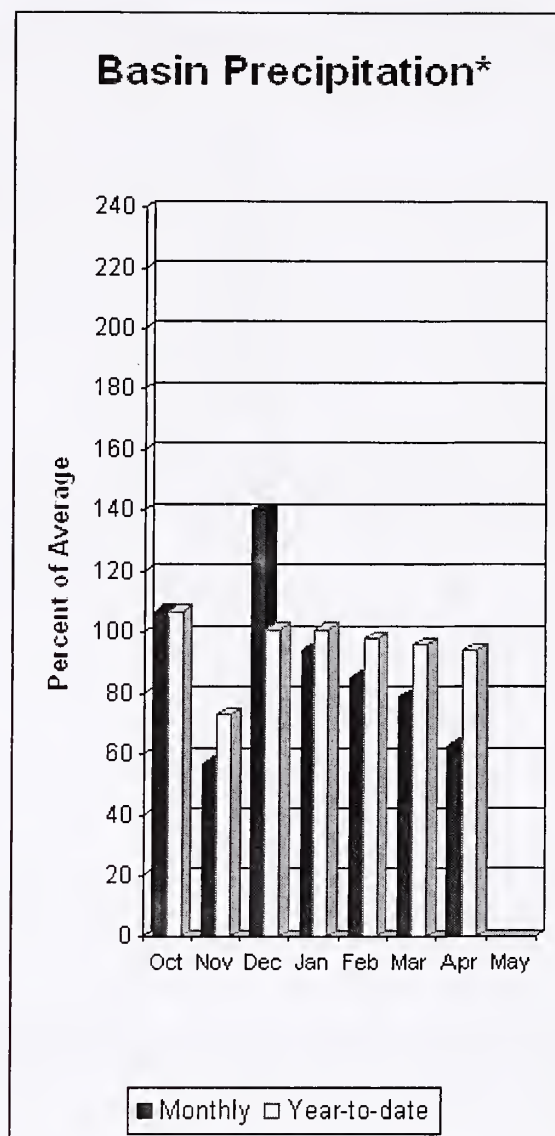
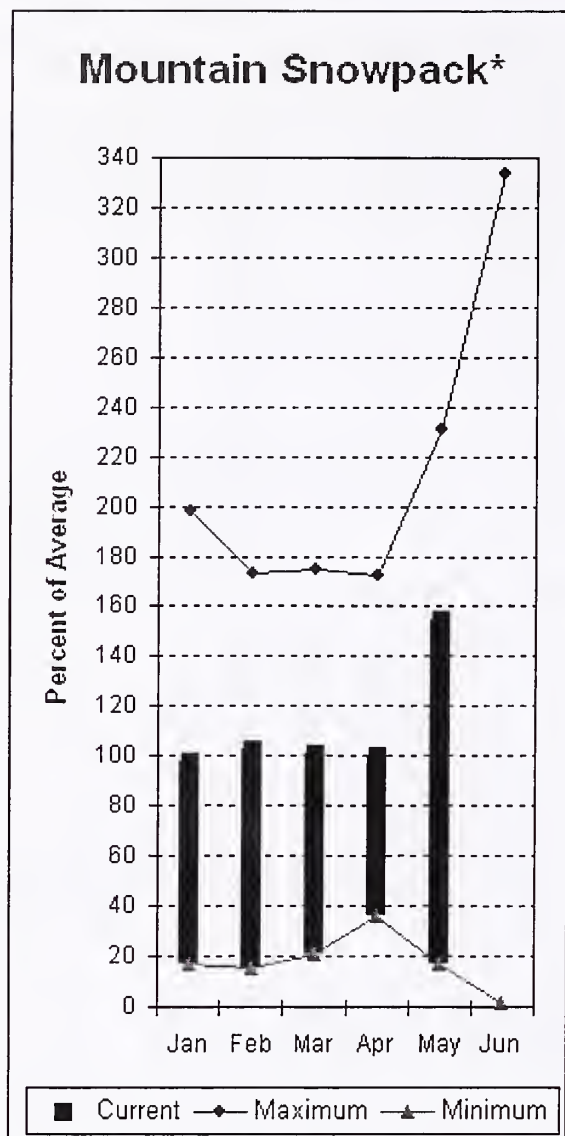
\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level. The value listed under 70% is actually a 75% exceedance level.



## Wenatchee - Chelan River Basins



\*Based on selected stations

Precipitation during April was 63% of average in the basin and 94% for the year-to-date. Runoff for Entiat River is forecast to be 100% of average for the summer. The May-September average forecast for Chelan River is 101%, Wenatchee River at Plain is 112%, Stehekin River is 100% and Icicle Creek is 105%. Stemilt and Squilchuck creeks should have near average flows as well. April average streamflows on the Chelan River were 43% and on the Wenatchee River 39%. May 1 snowpack in the Wenatchee River Basin was 117% of average; the Chelan, 99%; the Entiat, 199% and Stemilt Creek, 205%. Reservoir storage in Lake Chelan was 158,000-acre feet, 60% of May 1 average and 23% of capacity. Lyman Lake SNOTEL had the most snow water with 57.7 inches of water. This site would normally have 67.2 inches on May 1. Temperatures were 6 degrees below for April and 3 degrees below for the water year.

*For more information contact your local Natural Resources Conservation Service office.*

# Wenatchee - Chelan River Basins

## Streamflow Forecasts - May 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Stehekin R at Stehekin	MAY-JUL	510	575	620	100	665	730	620
	MAY-SEP	640	705	745	100	785	850	745
Chelan R at Chelan (2)	MAY-JUL	830	885	920	101	955	1010	910
	MAY-SEP	970	1020	1060	101	1100	1150	1050
Entiat R nr Ardenvoir	MAY-JUL	171	185	195	100	205	220	195
	MAY-SEP	190	205	215	100	225	240	215
Wenatchee R at Plain	MAY-JUL	875	955	1010	112	1070	1150	905
	MAY-SEP	995	1080	1140	112	1200	1290	1020
Icicle Ck nr Leavenworth	MAY-JUL	245	270	285	106	300	325	270
	MAY-SEP	270	295	315	105	335	360	300
Wenatchee R at Peshastin	MAY-JUL	1230	1340	1410	113	1480	1590	1250
	MAY-SEP	1400	1510	1590	113	1670	1780	1410
Columbia R bl Rock Island Dam (1,2)	MAY-JUL	49800	54300	56300	110	58300	62800	51100
	MAY-SEP	58600	64000	66400	108	68800	74200	61600

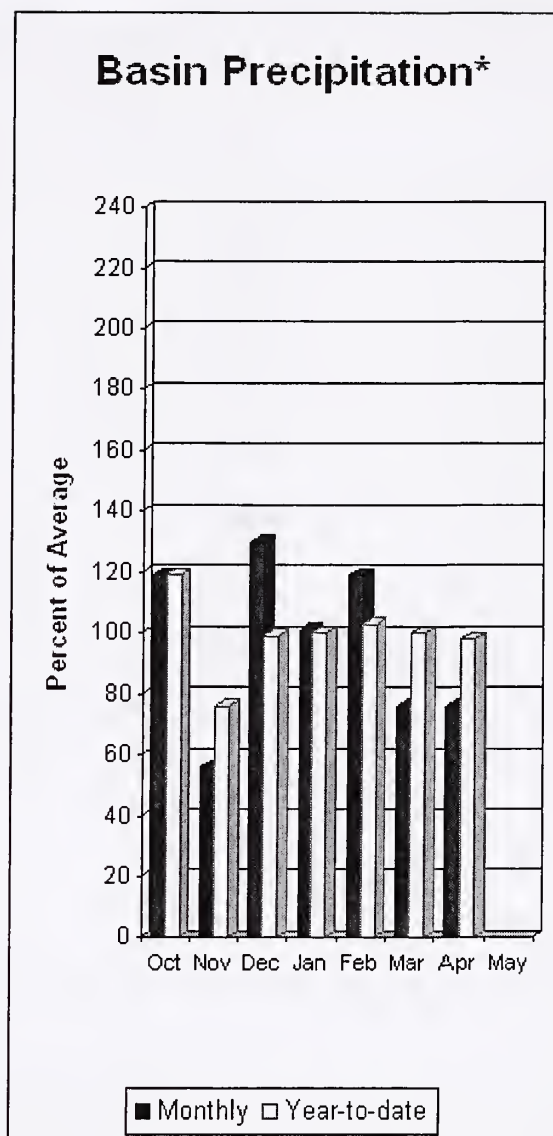
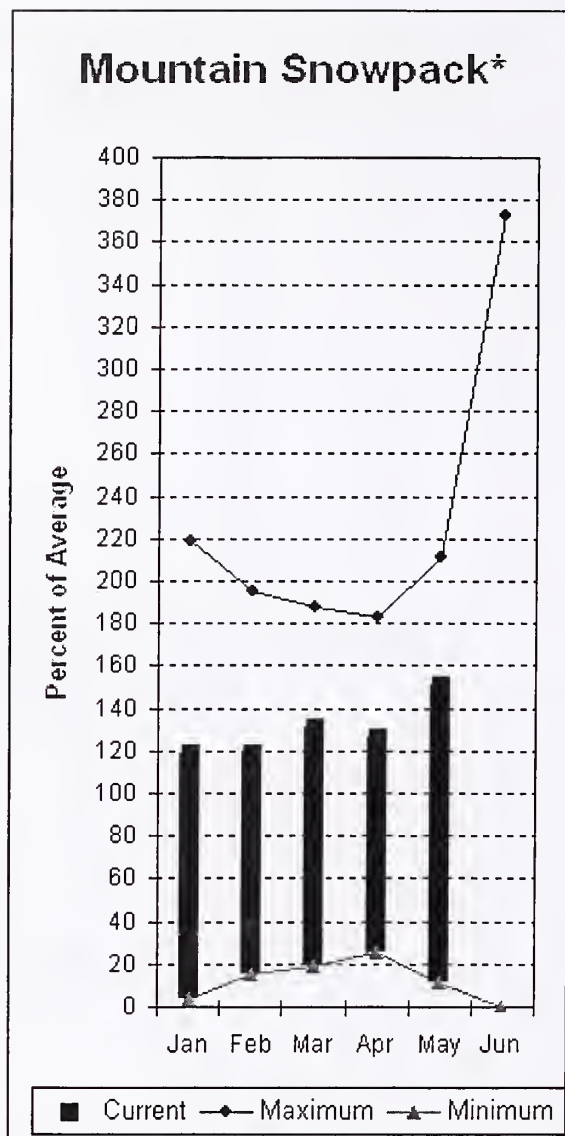
WENATCHEE - CHELAN RIVER BASINS Reservoir Storage (1000 AF) - End of April					WENATCHEE - CHELAN RIVER BASINS Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CHELAN LAKE	676.1	158.3	426.9	265.6	CHELAN LAKE BASIN	5	104	99
					ENTIAT RIVER	1	262	199
					WENATCHEE RIVER	8	159	117
					STEMILT CREEK	1	312	205
					COLOCKUM CREEK	1	0	60

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

# Upper Yakima River Basin



\*Based on selected stations

May 1 reservoir storage for the Upper Yakima reservoirs was 380,000-acre feet, 61% of average. Forecasts for the Yakima River at Cle Elum are 133% of average and the Teanaway River near Cle Elum is at 134%. Lake inflows are all forecasted to be above average this summer. April streamflows within the basin were Yakima near Cle Elum at 45% and Cle Elum River near Roslyn at 45%. May 1 snowpack was 151% based upon 8 snow course and SNOTEL readings within the Upper Yakima Basin. Precipitation was 76% of average for April and 98% year-to-date for water. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.



# Upper Yakima River Basin

## Streamflow Forecasts - May 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Keechelus Reservoir Inflow (2)	MAY-JUL	118	126	131	142	136	144	92
	MAY-SEP	130	139	146	142	153	162	103
Kachess Reservoir Inflow (2)	MAY-JUL	109	114	118	141	122	127	84
	MAY-SEP	119	125	130	141	135	141	92
Cle Elum Lake Inflow (2)	MAY-JUL	410	430	440	133	450	470	330
	MAY-SEP	465	485	500	133	515	535	375
Yakima R at Cle Elum (2)	MAY-JUL	775	815	845	133	875	915	635
	MAY-SEP	850	910	950	133	990	1050	715
Teanaway R bl Forks nr Cle Elum	MAY-JUL	97	112	122	134	132	147	91
	MAY-SEP	102	117	127	134	137	152	95

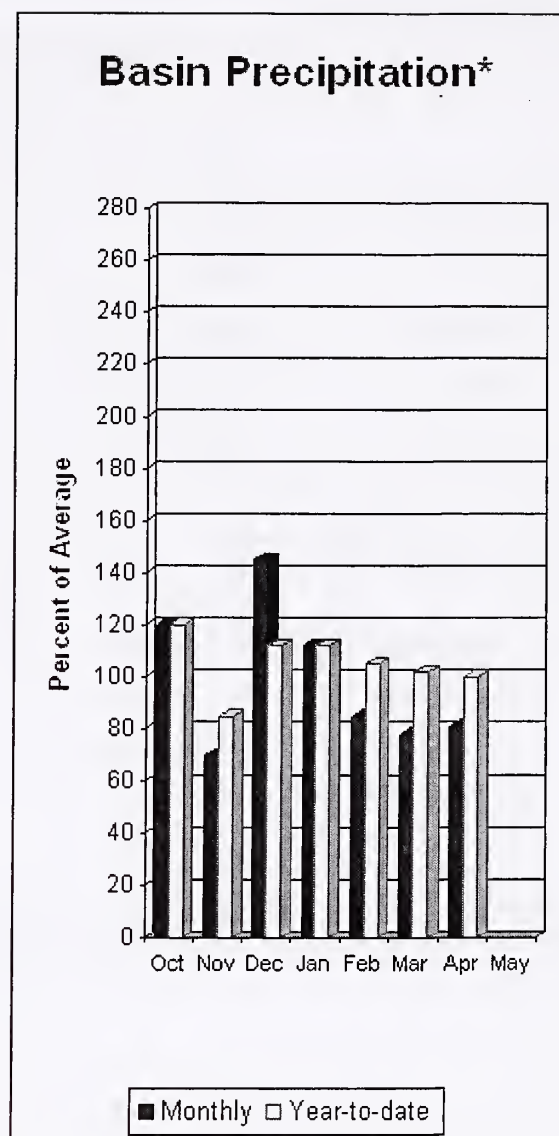
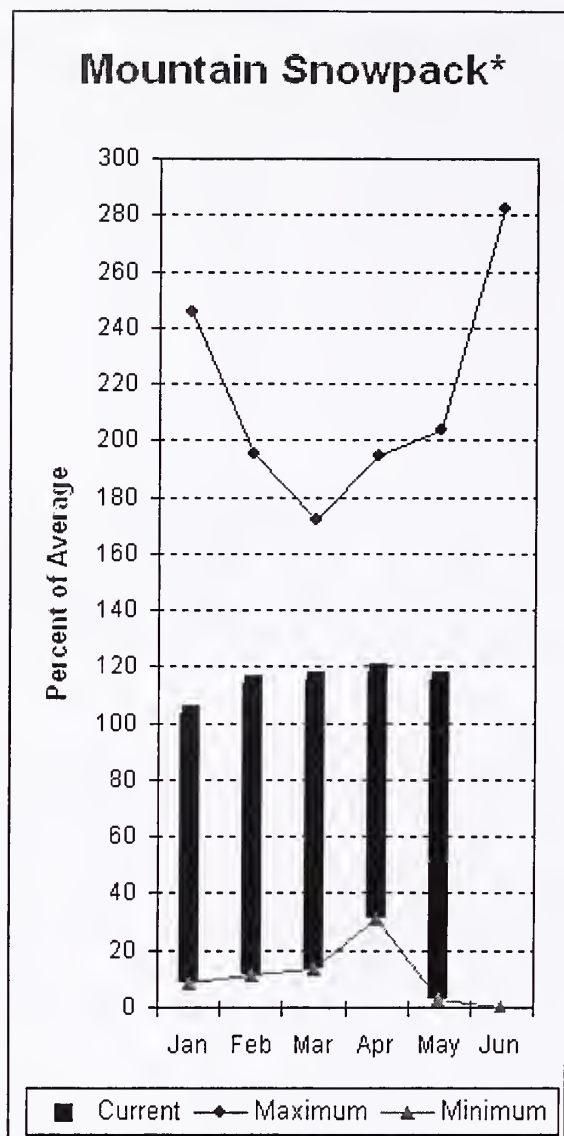
UPPER YAKIMA RIVER BASIN Reservoir Storage (1000 AF) - End of April					UPPER YAKIMA RIVER BASIN Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
KEECHELUS		NO REPORT			UPPER YAKIMA RIVER	6	179	143
KACHESS		NO REPORT						
CLE ELUM		NO REPORT						

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

## Lower Yakima River Basin



\*Based on selected stations

April average streamflows within the basin were: Yakima River near Parker, 51%; Naches River near Naches, 66%; and Yakima River at Kiona, 48%. May 1 reservoir storage for Bumping and Rimrock reservoirs was 107,000-acre feet, 63% of average. Forecast averages for Yakima River near Parker are 126%; American River near Nile, 113%; Ahtanum Creek, 104%; and Klickitat River near Glenwood, 125%. May 1 snowpack was 115% based upon 8 snow course and SNOTEL readings within the Lower Yakima Basin and Ahtanum Creek reported in at 127% of average. Precipitation was 81% of average for April and 100% year-to-date for water. Temperatures were 5 degrees below normal for April and 2 degrees below for the water year. Volume forecasts for Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

*For more information contact your local Natural Resources Conservation Service office.*

# Lower Yakima River Basin

## Streamflow Forecasts - May 1, 2008

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Bumping Lake Inflow (2)	MAY-JUL	99	112	121	118	130	143	103
	MAY-SEP	109	123	132	117	141	155	113
American R nr Nile	MAY-JUL	86	95	102	113	109	118	90
	MAY-SEP	95	106	113	113	120	131	100
Rimrock Lake Inflow (2)	MAY-JUL	170	184	193	115	200	215	168
	MAY-SEP	210	225	235	115	245	260	205
Naches R nr Naches (2)	MAY-JUL	590	655	700	123	745	810	570
	MAY-SEP	650	725	775	123	825	900	630
Ahtanum Ck at Union Gap	MAY-JUL	15.0	19.2	22	105	25	29	21
	MAY-SEP	16.9	21	24	104	27	31	23
Yakima R nr Parker (2)	MAY-JUL	1540	1640	1710	126	1780	1880	1360
	MAY-SEP	1750	1860	1940	126	2020	2130	1540
KLICKITAT near Glenwood	MAY-JUL	107	118	125	125	132	143	100
	MAY-SEP	150	161	169	125	177	188	135

LOWER YAKIMA RIVER BASIN Reservoir Storage (1000 AF) - End of April					LOWER YAKIMA RIVER BASIN Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BUMPING LAKE		NO REPORT						
RIMROCK		NO REPORT						

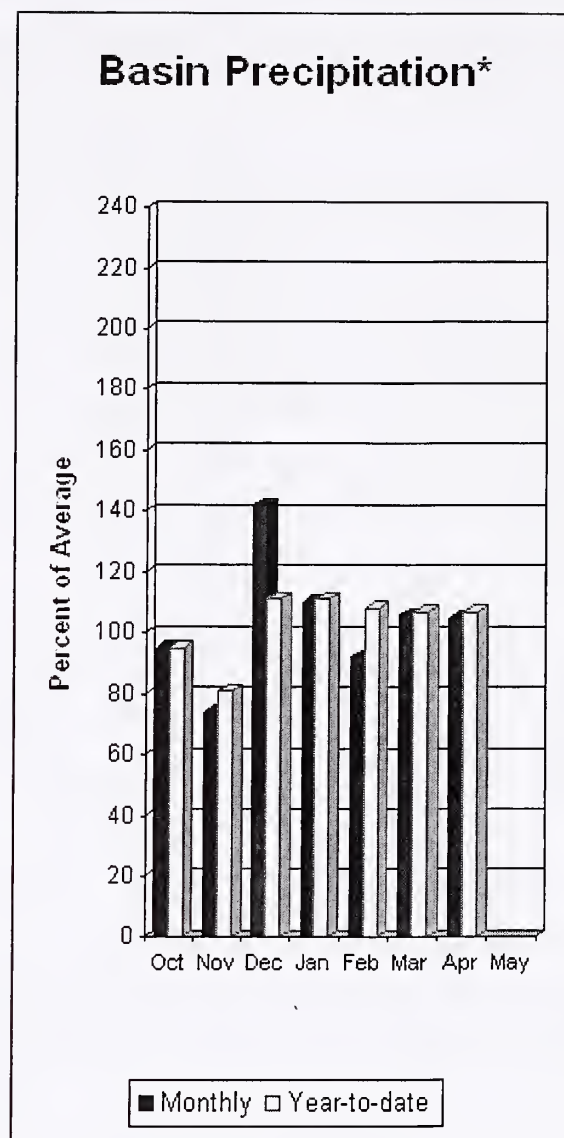
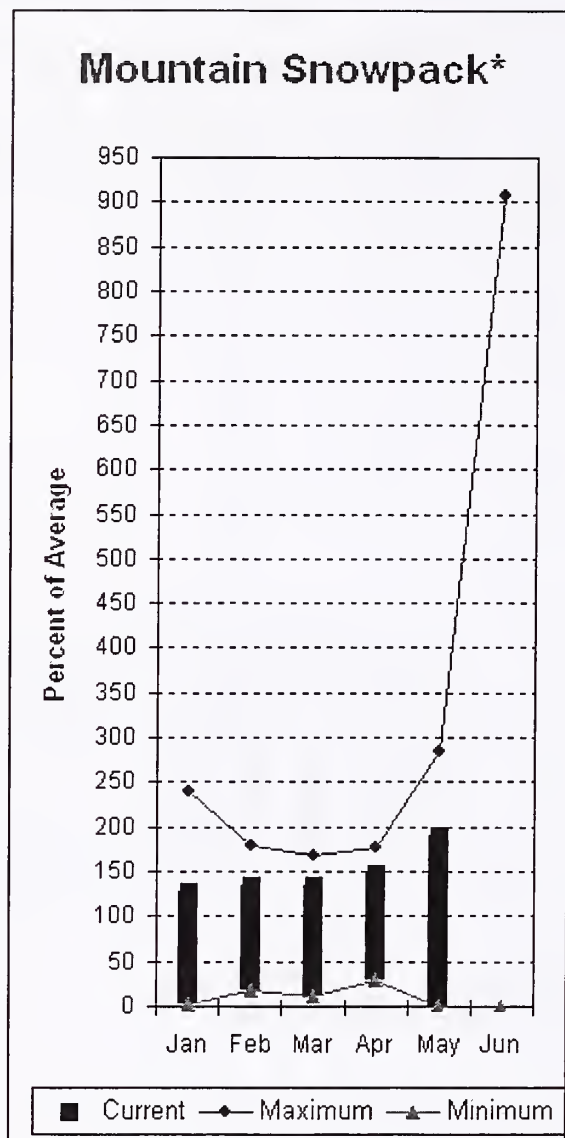
\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.



# Walla Walla River Basin



\*Based on selected stations

April precipitation was 105% of average, maintaining the year-to-date precipitation at 107% of average. Snowpack in the basin was 190% of average. Streamflow forecasts are 120% of average for Mill Creek and 112% for the SF Walla Walla near Milton-Freewater. April streamflow was 121% of average for the Walla Walla River. Average temperatures were 3 degrees below normal for April and 1 degree below average for the water year.

For more information contact your local Natural Resources Conservation Service office.

# Walla Walla River Basin

## Streamflow Forecasts - May 1, 2008

Forecast Point	Forecast Period	<----- Drier ----- Future Conditions ----- Wetter ----->						
		=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====		=====		=====		=====		=====
SF Walla Walla R nr Milton-Freewater	MAY-SEP	47	53	57	112	61	67	51
Mill Ck nr Walla Walla	MAY-JUL	14.2	16.4	18.0	122	19.6	22	14.7
	MAY-SEP	17.9	20	22	120	24	26	18.4

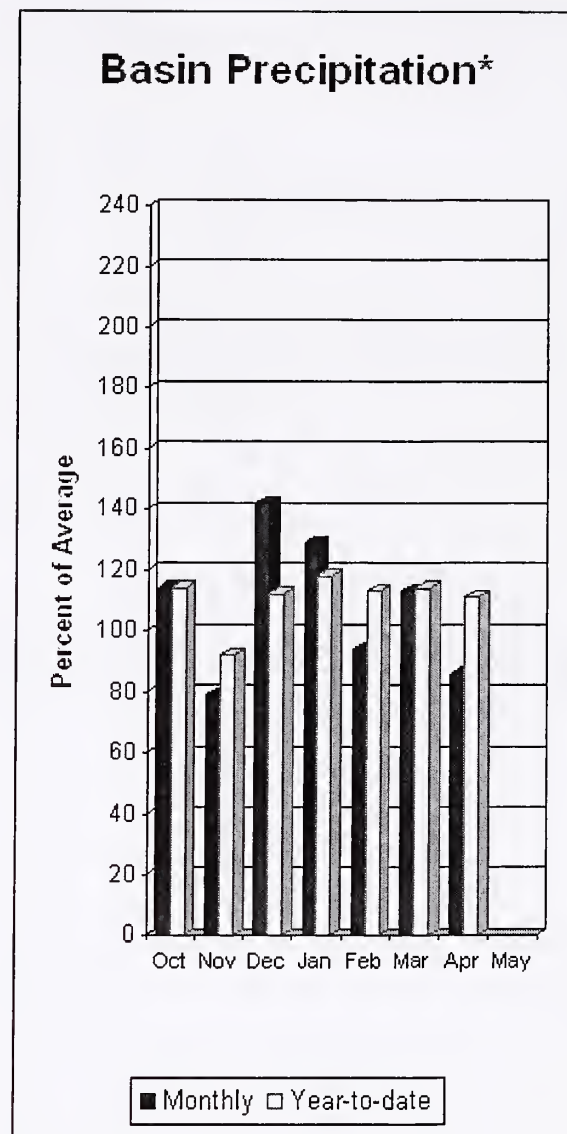
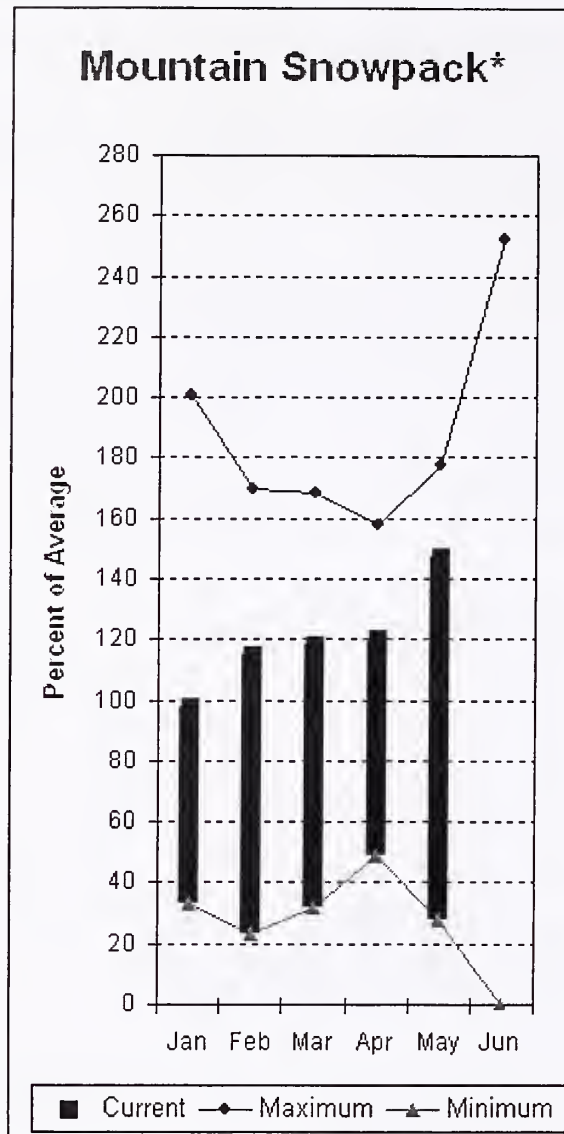
WALLA WALLA RIVER BASIN					WALLA WALLA RIVER BASIN			
Reservoir Storage (1000 AF) - End of April					Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					WALLA WALLA RIVER	2	546	190

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

# Lower Snake River Basin



\*Based on selected stations

The May-September forecast is for 130% for Clearwater River at Spalding. The Snake and Grande Ronde rivers can expect summer flows to be about 111% and 130% of normal respectively. April precipitation was 86% of average, bringing the year-to-date precipitation to 111% of average. May 1 snowpack readings averaged 147% of normal. April streamflow was 56% of average for Snake River below Lower Granite Dam and 79% for Grande Ronde River near Troy. Dworshak Reservoir reported current storage at 72% of average and 50% of capacity. Average temperatures were 3 degrees below normal for April and 1 degree below average for the water year.

*For more information contact your local Natural Resources Conservation Service office.*



# Lower Snake River Basin

## Streamflow Forecasts - May 1, 2008

		<<===== Drier =====		Future Conditions		===== Wetter =====>>		
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Grande Ronde R at Troy	MAY-JUL	935	1100	1180	130	1260	1420	910
	MAY-SEP	1040	1230	1310	130	1390	1580	1010
Clearwater R at Spalding	MAY-JUL	6450	7250	7610	132	7970	8770	5770
	MAY-SEP	6780	7640	8030	130	8420	9280	6190
SNAKE blw Lower Granite Dam (1,2)	MAY-JUL	15800	18100	19100	114	20100	22400	16700
	MAY-SEP	17600	20200	21400	111	22600	25200	19300

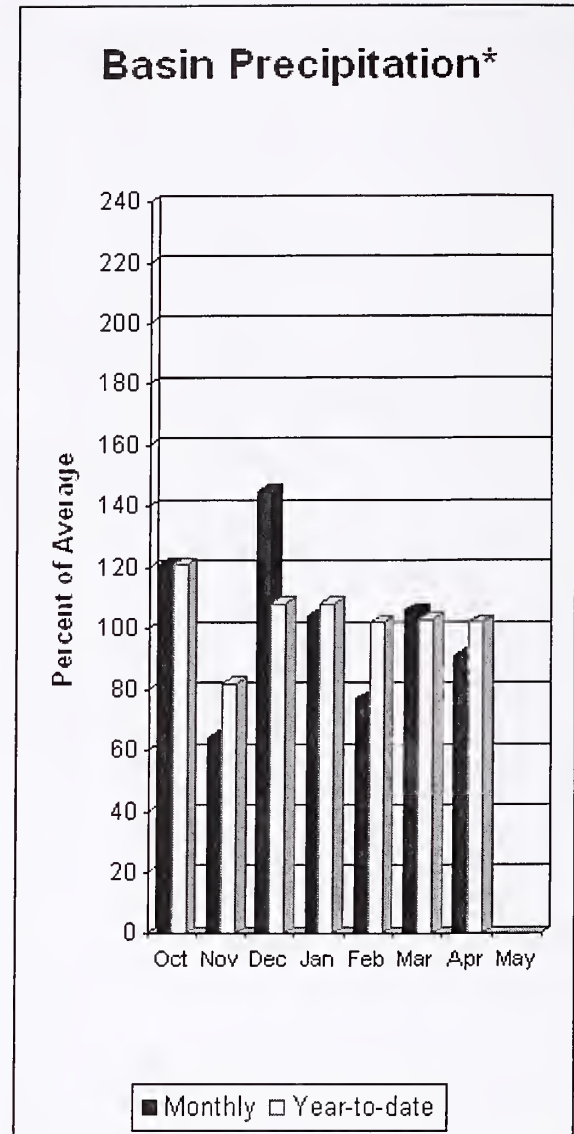
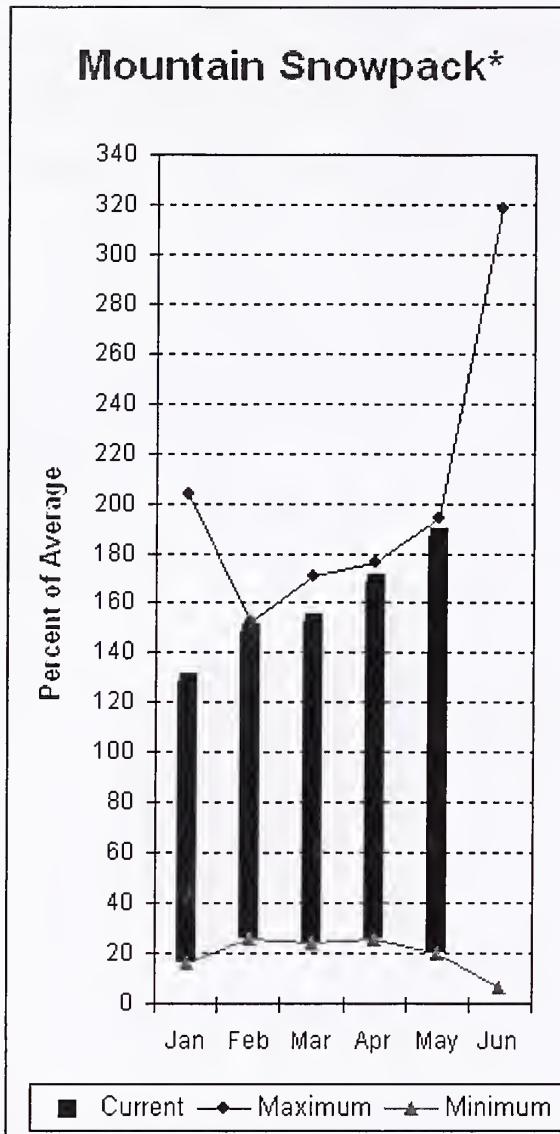
LOWER SNAKE RIVER BASIN Reservoir Storage (1000 AF) - End of April					LOWER SNAKE RIVER BASIN Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					LOWER SNAKE, GRANDE RONDE	10	264	147

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

## Cowlitz - Lewis River Basins



\*Based on selected stations

Forecasts for May–September streamflows within the basin are Lewis River at Ariel, 137% and Cowlitz River at Castle Rock, 134% of average. The Columbia at The Dalles is forecasted to have 105% of average flows this summer. April average streamflow for Cowlitz River was 70% and 80% for Lewis River. The Columbia River at The Dalles was 50% of average. April precipitation was 91% of average and the water-year average was 102%. May 1 snow cover for Cowlitz River was 151%, and Lewis River was 223% of average. Average temperatures have been 5 degrees below normal during April and 4 degrees below normal for the water year.

*For more information contact your local Natural Resources Conservation Service office.*

# Cowlitz - Lewis River Basins

## Streamflow Forecasts - May 1, 2008

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====		=====						=====
Columbia R at The Dalles (1,2)	MAY-JUL	67000	73300	76100	108	78900	85200	70500
	MAY-SEP	77900	85400	88800	105	92200	99700	84500
Klickitat near Glenwood	MAY-JUL	107	118	125	125	132	143	100
	MAY-SEP	150	161	169	125	177	188	135
Lewis at Ariel (2)	MAY-JUL	795	870	920	138	970	1040	667
	MAY-SEP	975	1050	1110	137	1170	1250	812
Cowlitz R. bl Mayfield Dam (2)	MAY-JUL	1560	1670	1750	140	1830	1940	1247
	MAY-SEP	1730	1920	2050	139	2180	2370	1478
Cowlitz R. at Castle Rock (2)	MAY-JUL	1950	2100	2200	135	2300	2450	1629
	MAY-SEP	2310	2510	2640	134	2770	2970	1972

### COWLITZ - LEWIS RIVER BASINS Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage ***		
		This Year	Last Year	Avg
MOSSYROCK	0.0	1003.2	1289.9	---
SWIFT	0.0	440.9	695.5	---
YALE	0.0	380.9	386.5	---
MERWIN	0.0	409.9	404.8	---

### COWLITZ - LEWIS RIVER BASINS Watershed Snowpack Analysis - May 1, 2008

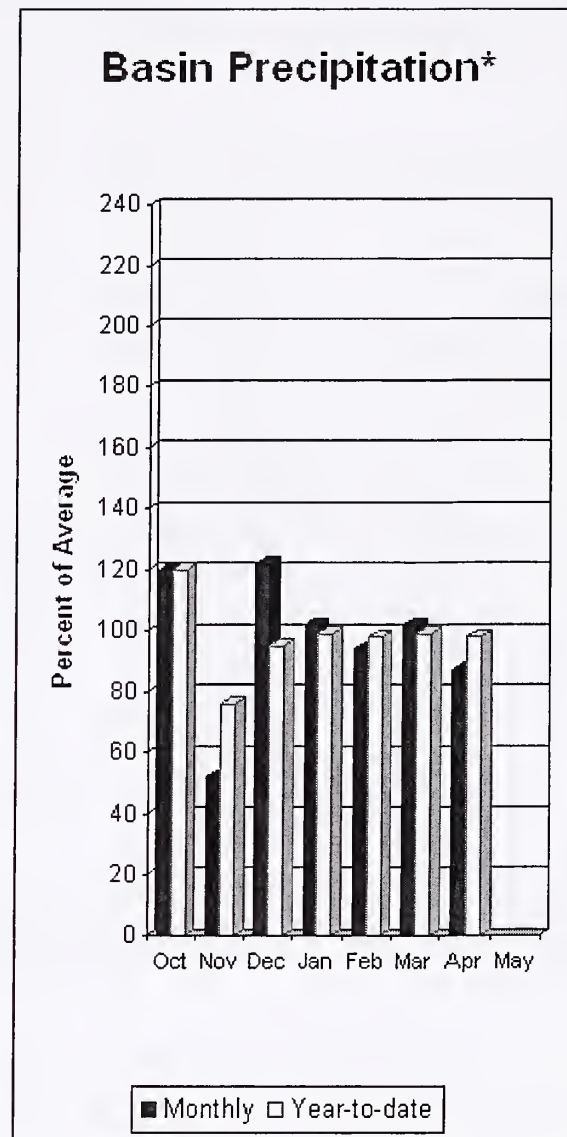
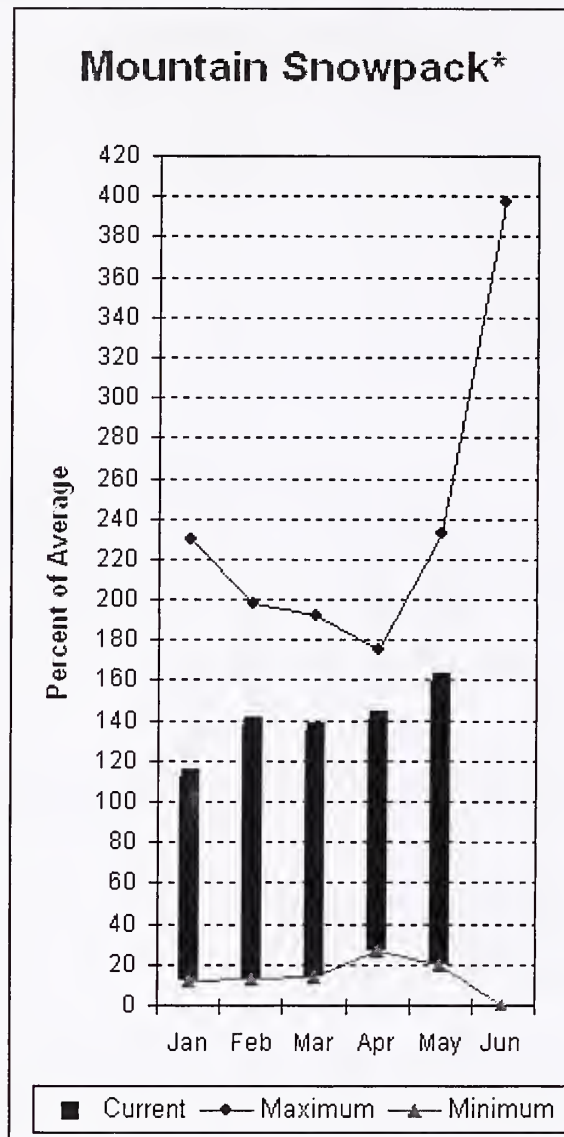
Watershed	Number of Data Sites	This Year as % of	
		Last Yr	Average
LEWIS RIVER	5	216	223
COWLITZ RIVER	7	174	151

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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The value listed under 70% is actually a 75% exceedance level.

## White - Green River Basins



\*Based on selected stations

Summer runoff is forecast to be 131% of normal for the Green River below Howard Hanson Dam and 135% for the White River near Buckley. May 1 snowpack was 103% of average for the White River, 164 % for Puyallup River and 211% in the Green River Basin. Water content on May 1 at Corral Pass SNOTEL, at an elevation of 6,000 feet, was 42 inches. This site has a May 1 average of 35.3 inches. April precipitation was 87% of average, bringing the water year-to-date to 98% of average for the basins. Average temperatures in the area were 4 degrees below normal for April and 2 degrees below for the water-year.

*For more information contact your local Natural Resources Conservation Service office.*



# White - Green - Puyallup River Basins

## Streamflow Forecasts - May 1, 2008

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
WHITE near Buckley (1,2)	MAY-JUL	390	445	470	135	495	550	348
	MAY-SEP	510	570	595	135	620	680	442
GREEN R below Howard Hansen (1,2)	MAY-JUL	152	192	230	131	230	270	176
	MAY-SEP	180	220	265	131	260	300	202

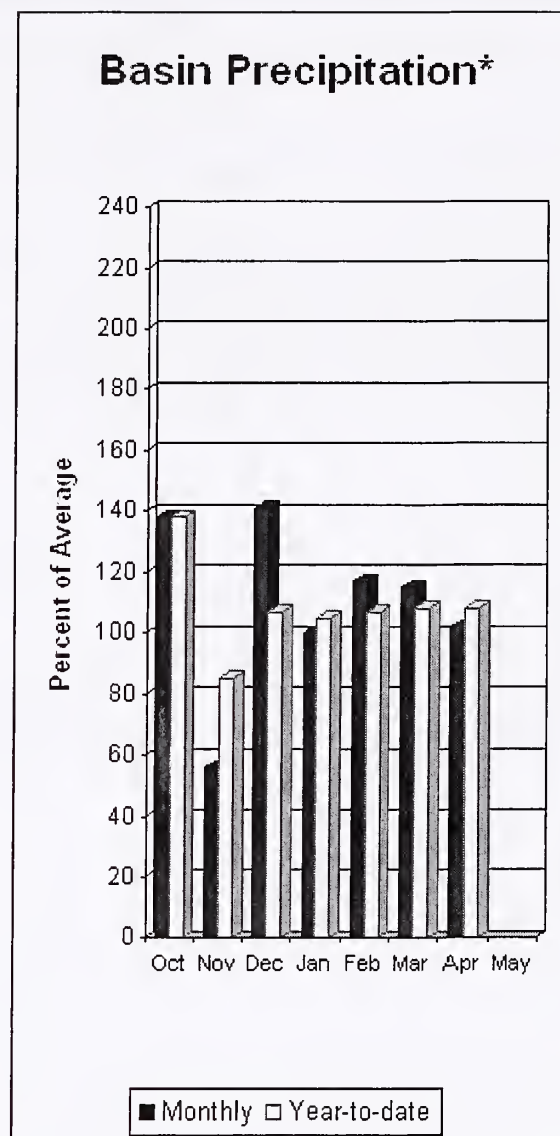
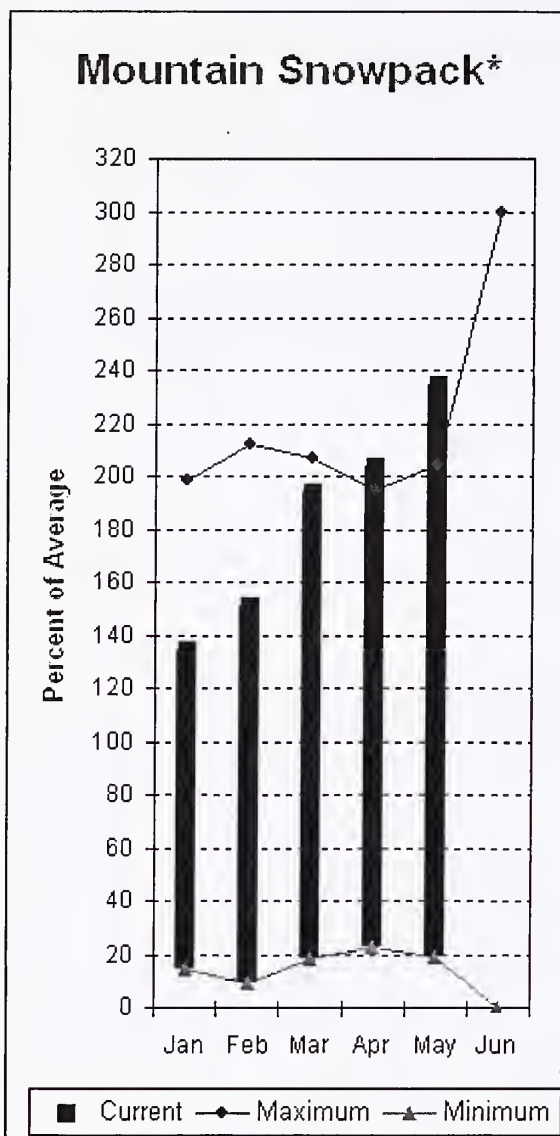
WHITE - GREEN - PUYALLUP RIVER BASINS Reservoir Storage (1000 AF) - End of April					WHITE - GREEN - PUYALLUP RIVER BASINS Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					WHITE RIVER	3	133	117
					GREEN RIVER	6	249	211
					PUYALLUP RIVER	5	174	164

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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- (2) - The value is natural volume - actual volume may be affected by upstream water management.
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The value listed under 70% is actually a 75% exceedance level.

## Central Puget Sound River Basins



\*Based on selected stations

Forecast for spring and summer flows are: 166% for Cedar River near Cedar Falls; 165% for Rex River; 167% for South Fork of the Tolt River; and 165% for Cedar River at Cedar Falls. Basin-wide precipitation for April was 102% of average, bringing water-year-to-date to 108% of average. May 1 average snow cover in Cedar River Basin was 454%, Tolt River Basin was 275%, Snoqualmie River Basin was 199%, and Skykomish River Basin was 152%. Rex River SNOTEL site, at 3960 feet, had 90 inches of water content. Average May 1 water content is 19 inches at Rex River. Temperatures were 3 degrees below average for April and 1 degree below normal for the water-year.

*For more information contact your local Natural Resources Conservation Service office.*

# Central Puget Sound River Basins

## Streamflow Forecasts - May 1, 2008

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>		30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====								
CEDAR near Cedar Falls	MAY-JUL	75	83	86	165	93	101	52
	MAY-SEP	84	92	98	166	104	112	59
REX near Cedar Falls	MAY-JUL	24	27	29	167	31	34	17.4
	MAY-SEP	27	31	33	165	35	39	20
CEDAR RIVER at Cedar Falls	MAY-JUL	46	64	77	164	90	108	47
	MAY-SEP	40	61	76	165	91	112	46
SOUTH FORK TOLT near Index	MAY-JUL	15.4	17.1	18.2	166	19.3	21	11.0
	MAY-SEP	16.5	19.8	22	167	24	28	13.2

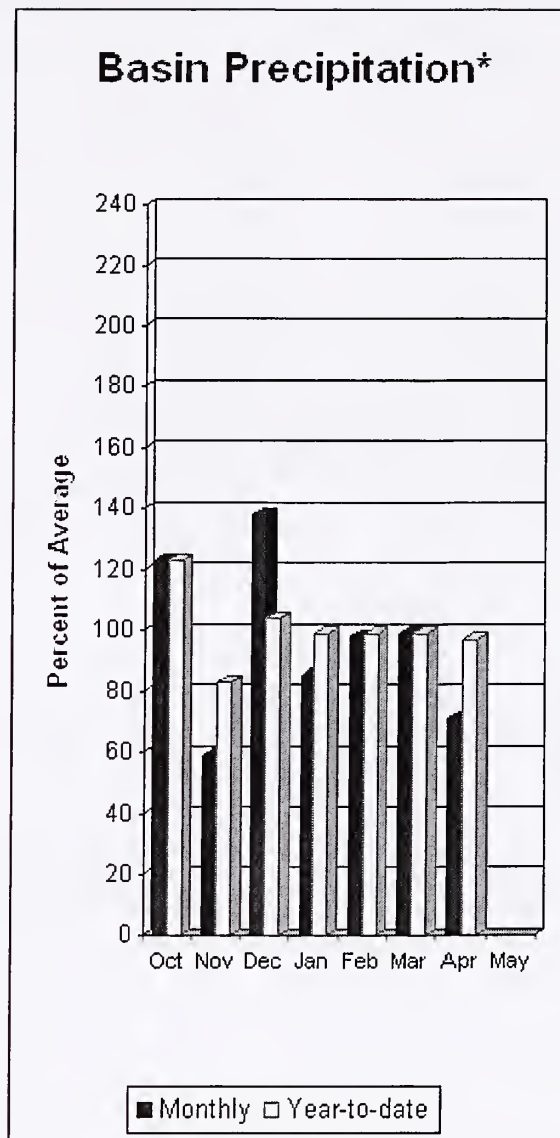
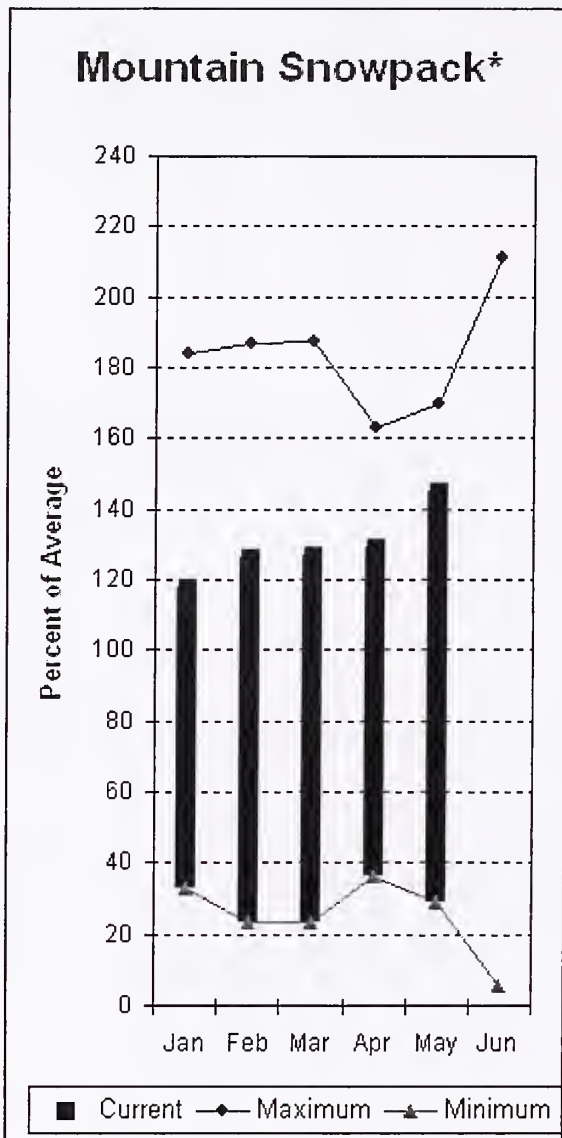
CENTRAL PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of April					CENTRAL PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					CEDAR RIVER	4	345	435
					TOLT RIVER	2	241	275
					SNOQUALMIE RIVER	4	199	199
					SKYKOMISH RIVER	2	148	152

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

## North Puget Sound River Basins



\*Based on selected stations

Forecast for Skagit River streamflow at Newhalem is 112% of average for the spring and summer period. April streamflow in Skagit River was 52% of average. Other forecast points included Baker River at 115% and Thunder Creek at 119% of average. Basin-wide precipitation for April was 71% of average, bringing water-year-to-date to 97% of average. May 1 average snow cover in Skagit River Basin was 120%, and Nooksack River Basin was 198% and the Baker River was 123%. Marten Lake Aerial Marker, at 3,600 feet, had 100.2 inches of water content and 189 inches of snow depth. Average May 1 water content is 73.4 inches at Marten Lake. May 1 Skagit River reservoir storage was 67% of average and 36% of capacity. Average temperatures for April were 3 degrees below normal for the basin and 2 degrees below average for the water year.

*For more information contact your local Natural Resources Conservation Service office.*



# North Puget Sound River Basins

## Streamflow Forecasts - May 1, 2008

Forecast Point	Forecast Period	<<===== Drier =====		Future Conditions		===== Wetter =====>>		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	
THUNDER CREEK near Newhalem	MAY-JUL	225	245	255	120	265	285	212
	MAY-SEP	335	355	370	119	385	405	310
SKAGIT at Newhalem (2)	MAY-JUL	1700	1790	1850	115	1910	2000	1611
	MAY-SEP	2020	2130	2200	112	2270	2380	1964
BAKER RIVER near Concrete	MAY-JUL	655	730	785	115	840	915	684
	MAY-SEP	835	955	1040	115	1120	1250	906

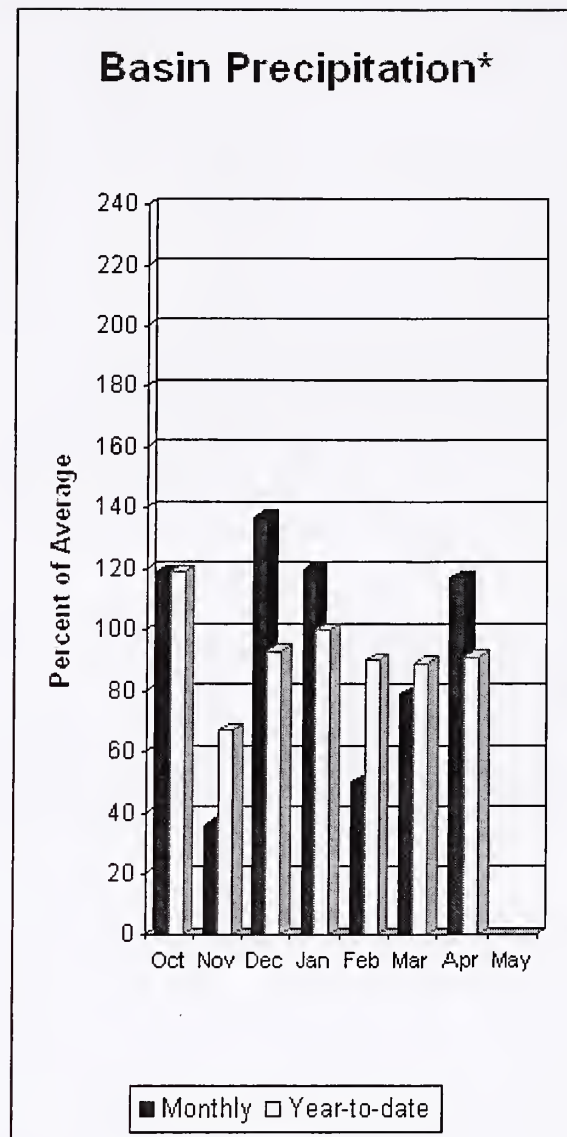
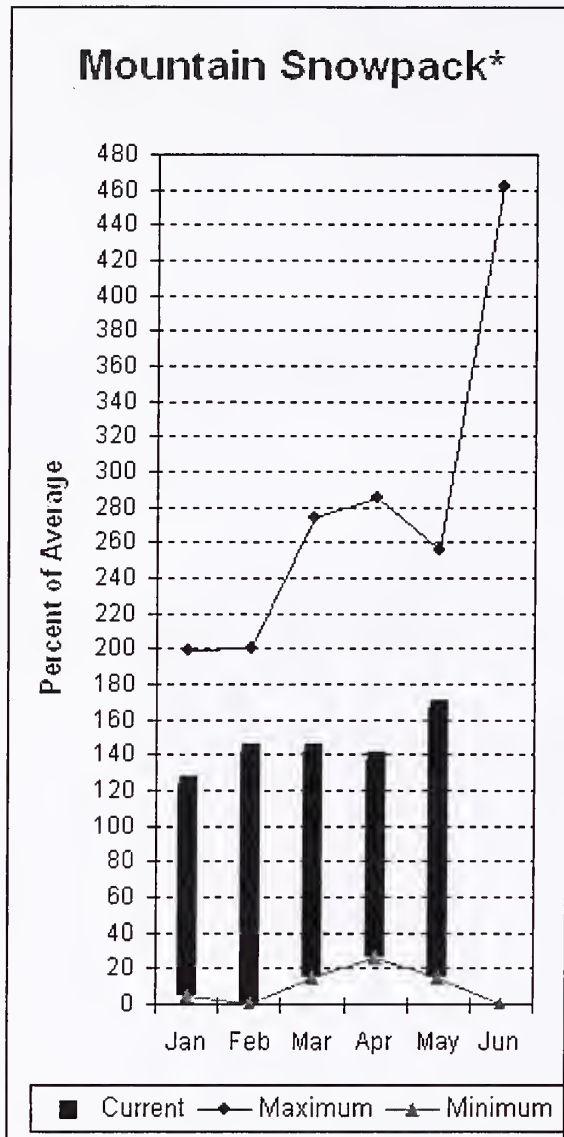
NORTH PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of April					NORTH PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - May 1, 2008		
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average
ROSS		NO REPORT			SKAGIT RIVER	16	114
DIABLO RESERVOIR		NO REPORT			BAKER RIVER	0	183
					NOOKSACK RIVER	1	185

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.

# Olympic Peninsula River Basins



\*Based on selected stations

Forecasted average runoff for streamflow for the Dungeness and Elwha rivers is 123% and 125% respectively. April runoff in the Dungeness River was 85% of normal. Big Quilcene and Wynoochee rivers should expect above average runoff this summer as well. April precipitation was 117% of average. Precipitation has accumulated at 91% of average for the water year. April precipitation at Quillayute was 8.54 inches. The thirty-year average for April is 7.44 inches. Olympic Peninsula snowpack averaged 166% of normal on May 1. Temperatures were 2 degrees below average for April and 1 degree below for the water year.

For more information contact your local Natural Resources Conservation Service office.

# Olympic Peninsula River Basins

## Streamflow Forecasts - May 1, 2008

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
DUNGENESS near Sequim	MAY-JUL	114	124	131	125	138	148	105
	MAY-SEP	137	152	162	123	172	187	132
ELWHA near Port Angeles	MAY-JUL	385	405	420	124	435	455	338
	MAY-SEP	485	510	530	125	550	575	423

OLYMPIC PENINSULA RIVER BASINS					OLYMPIC PENINSULA RIVER BASINS			
Reservoir Storage (1000 AF) - End of April					Watershed Snowpack Analysis - May 1, 2008			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					OLYMPIC PENINSULA	5	156	166

\* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural volume - actual volume may be affected by upstream water management.
- (3) - Median value used in place of average. The value listed under 30% is actually a 25% exceedance level.  
The value listed under 70% is actually a 75% exceedance level.





*Issued by*

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**U.S. Department of Agriculture**

*Released by*

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**Spokane, Washington**

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## **The Following Organizations Cooperate with the Natural Resources Conservation Service in Snow Survey Work\*:**

<b>Canada</b>	Ministry of Sustainable Resources Snow Survey, River Forecast Centre, Victoria, British Columbia
<b>State</b>	Washington State Department of Ecology Washington State Department of Natural Resources
<b>Federal</b>	Department of the Army Corps of Engineers U.S. Department of Agriculture Forest Service U.S. Department of Commerce NOAA, National Weather Service U.S. Department of Interior Bonneville Power Administration Bureau of Reclamation Geological Survey National Park Service Bureau of Indian Affairs Recourse Conservation & Development Councils
<b>Local</b>	City of Tacoma City of Seattle Chelan County P.U.D. Pacific Power and Light Company Puget Sound Power and Light Company Washington Water Power Company Snohomish County P.U.D. Colville Confederated Tribes Spokane County Yakama Indian Nation Whatcom County Pierce County Kalispel Tribe of Indians Spokane Indian Tribe Jamestown S'klallum Tribe
<b>Private</b>	Okanogan Irrigation District Wenatchee Heights Irrigation District Newman Lake Homeowners Association Whitestone Reclamation District

\*Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.



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PITNEY BOWES

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# Washington Water Supply Outlook Report

Natural Resources Conservation Service  
Spokane, WA





